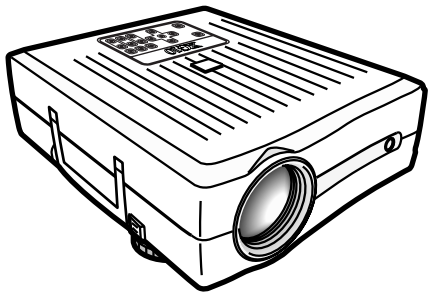
Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
ARP2979

HIGH RESOLUTION LCD PROJECTOR

RVD-XG10
RVD-XG10ED

VIDEO CIRCUIT KIT

RVA-VK10

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model			Power Requirement	Remarks
	RVD-XG10	RVD-XG10ED	RVA-VK10		
TUCYL	◯	◯	–	AC110-240V	
ZY	–	–	◯	————	

● **RVA-VK10 is a dealer option model for RVD-XG10ED.**

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & safety code section 25249.6 - proposition 65

1.1 SAFETY PRECAUTIONS (FOR USA MODEL ONLY)

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or mirror case.
The following precautions should be observed:

1. When service is required, even though the FRONT PROJECTOR an isolation transformer should be inserted between power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacturer's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacturer has become defective, or inadvertently defeated during servicing.

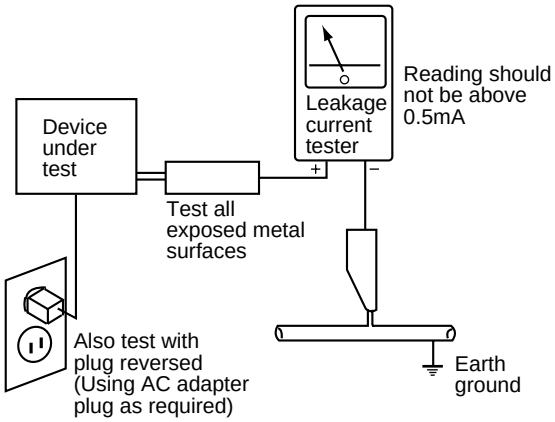
Therefore, the following checks should be performed for the continued protection of the customer and service technician.

Leakage Current Cold Check

With the AC plug removed from the l20V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (screwheads on the rear), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power switch on.
Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (screwheads on the rear), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
+
–
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

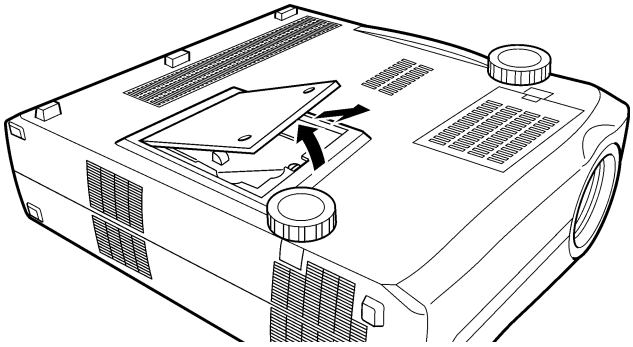
ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

1.2 PRODUCT SAFETY NOTICE

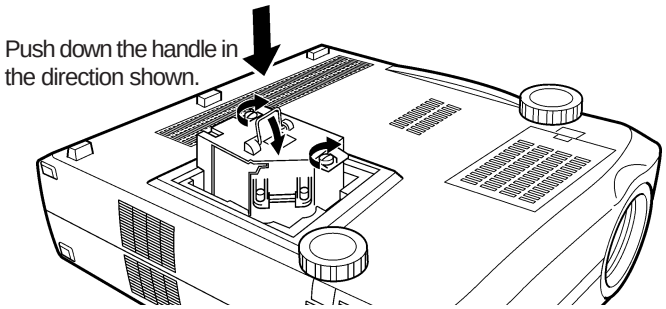
Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

1.3 REPLACING THE LAMP

- The system sets the interlock switch to OFF when the cover is removed. For safety reasons, the power cannot be turned ON.
- Be sure to disconnect the power plug when replacing the lamp. The projector will still be very hot inside just after the power is turned off.
  Therefore, wait more than one hour after turning off the power and check that the projector has cooled down inside before replacing the lamp.
  Replacing the lamp while the projector is being used or immediately after it has been stopped will cause burns because the lamp is still very hot.



- Never touch the light bulb or the reflecting mirror with your bare hands. Dirt left behind from fingerprints or from your hands could cause the lamp to overheat, and this in turn could shorten the effective life of the lamp.
- Be sure to read the instruction manual provided with your Liquid crystal projector before replacing the lamp. (Also be sure to reset to the lamp life meter after replacing the lamp.)
- Push down the handle in the direction shown.



1.4 CAUTION: HIGH TEMPERATURE

The mirror case and lamp assembly of this system become hot during operation. Before servicing, turn the power off and wait until the system cools down.

1.5 CHARGED SECTION

■ Charged section

The circuit in which the commercial AC power is used as it is without passing through the power supply transformer. If the charged section is touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. In this case, be sure to connect the set via an insulated transformer and supply the current.

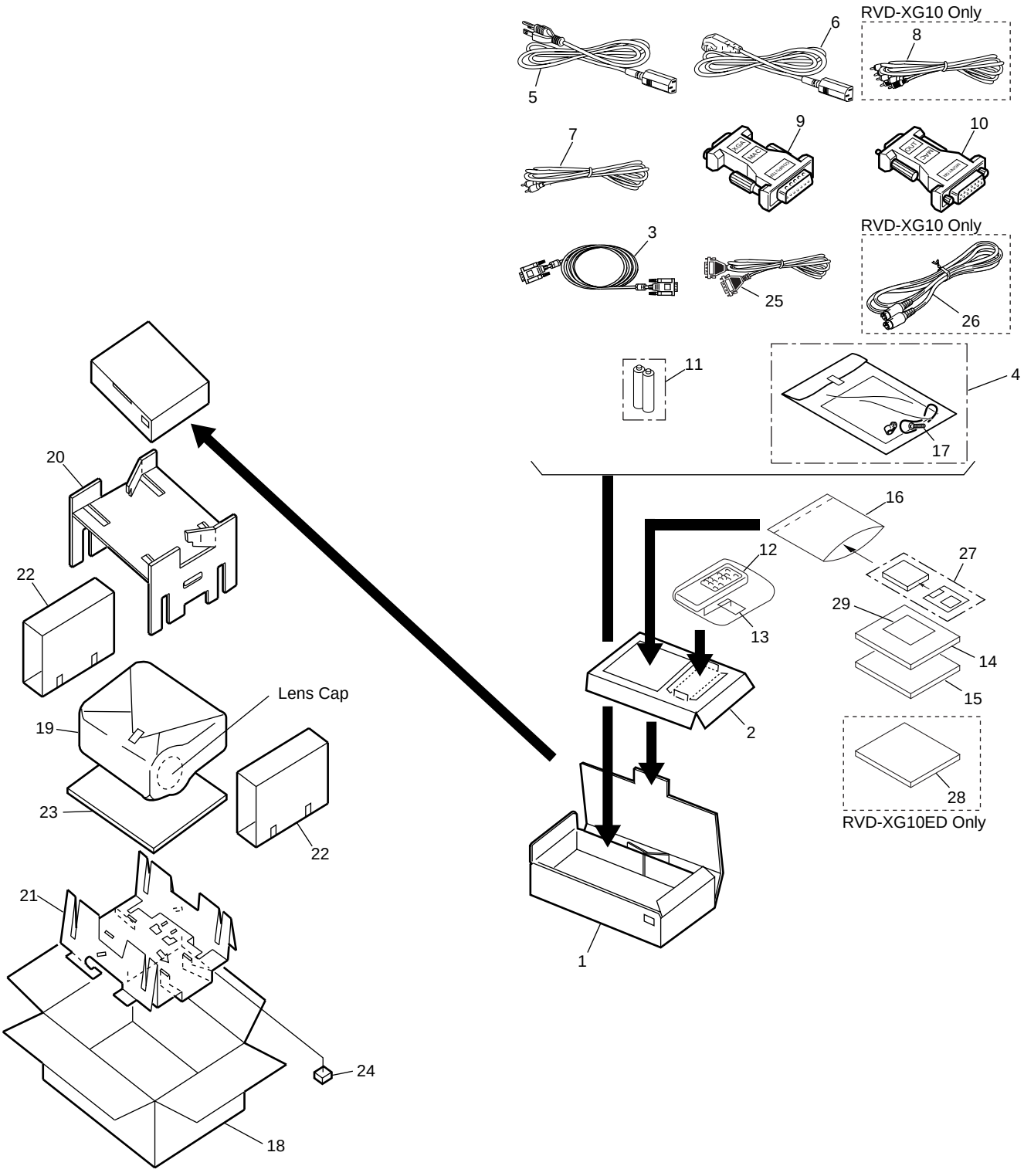
■ Charged section (Power supply primary side)

1. AC FILTER Assy
2. The primary side of the DC POWER SUPPLY Assy
3. AC INLET
4. Power Switch (S2303)
5. AC Power Cord
6. Interlock Switch (S2301)
7. Thermostat (S2302)

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING FOR RVD-XG10 AND RVD-XG10ED



(1) PACKING FOR RVD-XG10 AND RVD-XG10ED PARTS LIST

Mark	No.	Description	Part No.
	1	ACCESSORY CASE	AHC9004
	2	ACCESSORY PAD	AHC9005
	3	CORD FOR CONNECTING COMPUTER	ADE9016
	4	LENS CAP SET (HOLDER + SCREW + STRING)	AEA9002
⚠	5	POWER CORD	ADG9008
⚠	6	POWER CORD	ADG9009
	7	STEREO MINI PLUG CORD	ADE9023
	8	AV CORD	See Contrast table (2)
	9	CONVERSION ADAPTER (FOR MACINTOSH INPUT)	ADE9009
	10	CONVERSION ADAPTER (FOR MACINTOSH OUTPUT)	ADE9010
NSP	11	DRY CELL BATTERY (R6P,AA)	AEX-010
	12	REMOTE CONTROL UNIT (CU-V156)	AXD9004
	13	BATTERY COVER	AZN9010
	14	OPERATING INSTRUCTIONS (ENGLISH / FRENCH)	ARE9003
	15	OPERATING INSTRUCTIONS (SPANISH)	ARC9007
NSP	16	VINYL BAG	AHG1083
	17	SCREW	PMB40P200FZK
	18	PACKING CASE	See Contrast table (2)
	19	PACKING SHEET	AHG1172
	20	PAD (UPPER)	AHA9006
	21	PAD (UNDER)	AHA9007
	22	PAD (SIDE)	AHB9005
	23	SPACER	AHB9006
	24	SUB PAD	AHB9007
	25	RS-232C CABLE	ADE9017
	26	S-VIDEO CORD	See Contrast table (2)
	27	FLOPPY DISK	AWX9002
	28	OPERATING INSTRUCTIONS (GERMAN/ITALIAN)	See Contrast table (2)
NSP	29	FD CAUTION	ARM9006

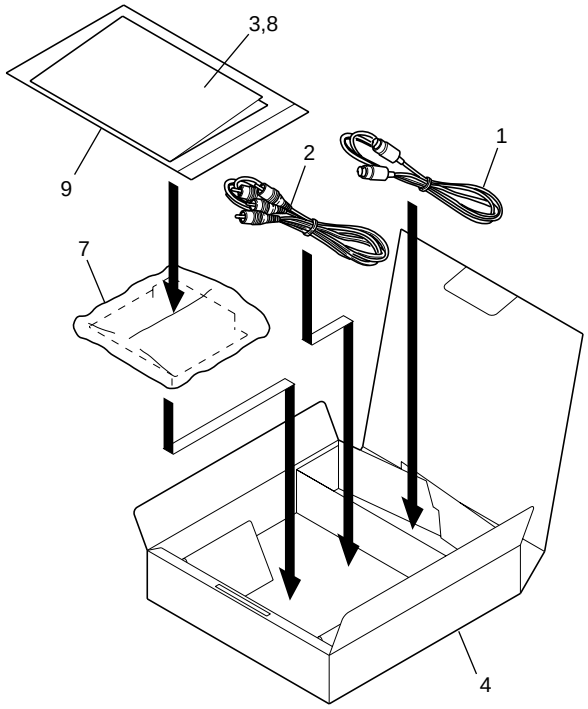
(2) CONTRAST TABLE

RVD-XG10/TUCYL and RVD-XG10ED/TUCYL have the same construction except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			RVD-XG10/TUCYL	RVD-XG10ED/TUCYL	
	8	AV CORD	ADE9022	Not used	
	18	PACKING CASE	AHD9019	AHD9018	
	26	S-VIDEO CORD	ADE9021	Not used	
	28	OPERATING INSTRUCTIONS (GERMAN / ITALIAN)	Not used	ARC9006	

2.2 PACKING FOR RVA-VK10

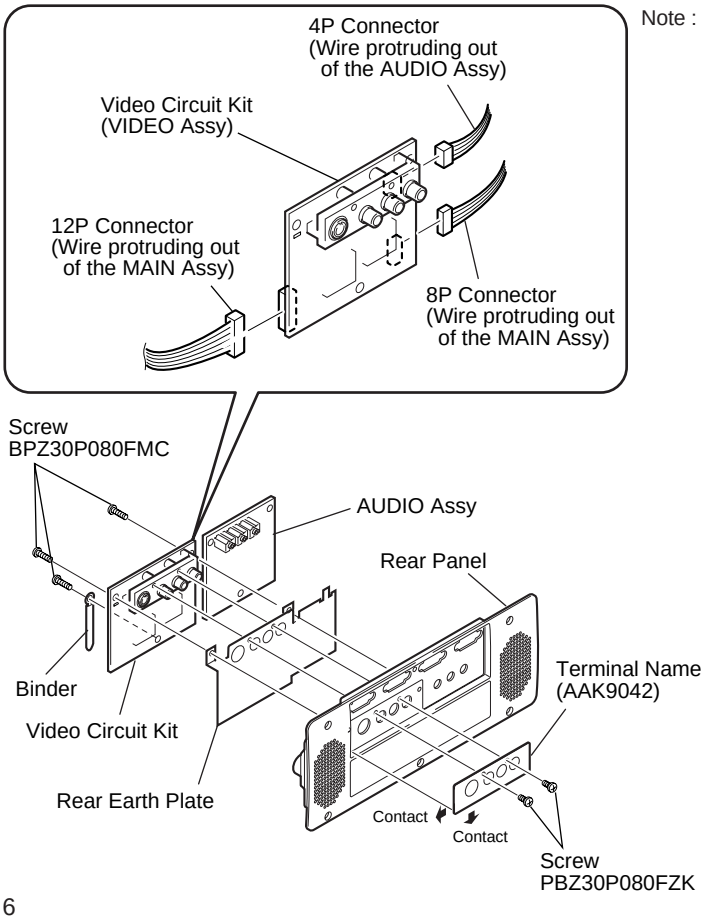
Note : RVA-VK10 is a dealer option model for RVD-XG10ED.
Circuit PCB of RVA-VK10 is the same as VIDEO Assy (AWZ9026) of RVD-XG10.



● PACKING FOR RVA-VK10 PARTS LIST

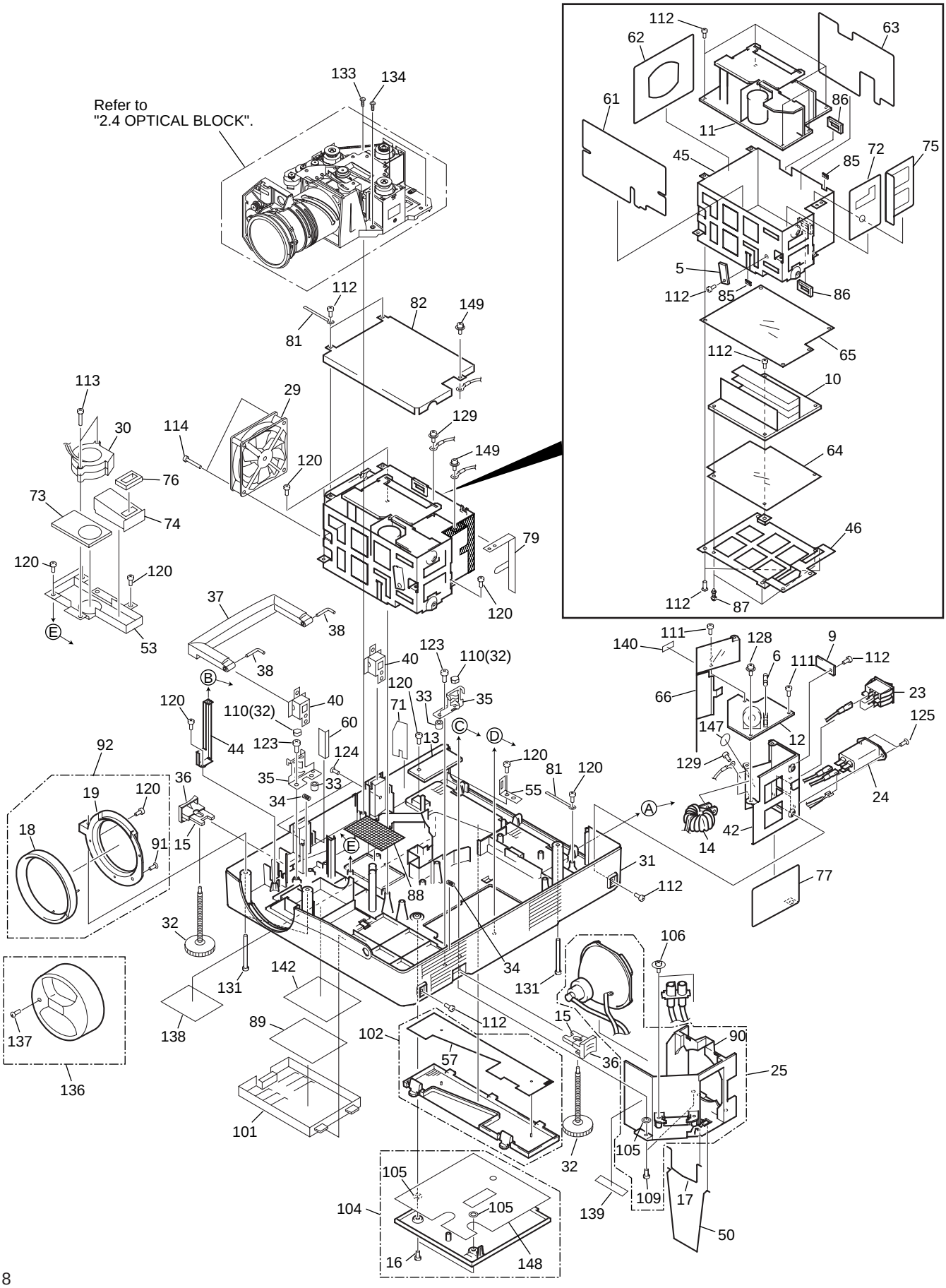
Mark	No.	Description	Part No.
	1	S-VIDEO CORD	ADE9021
	2	AV CORD	ADE9022
	3	VIDEO CAUTION	ARM9008
NSP	4	PACKING CASE	AHD9016
	5	• • • • •	
	6	• • • • •	
	7	AIR CAP	AHG9007
	8	TERMINAL NAME LABEL B	AAK9042
NSP	9	MANUAL BAG	AHG9001

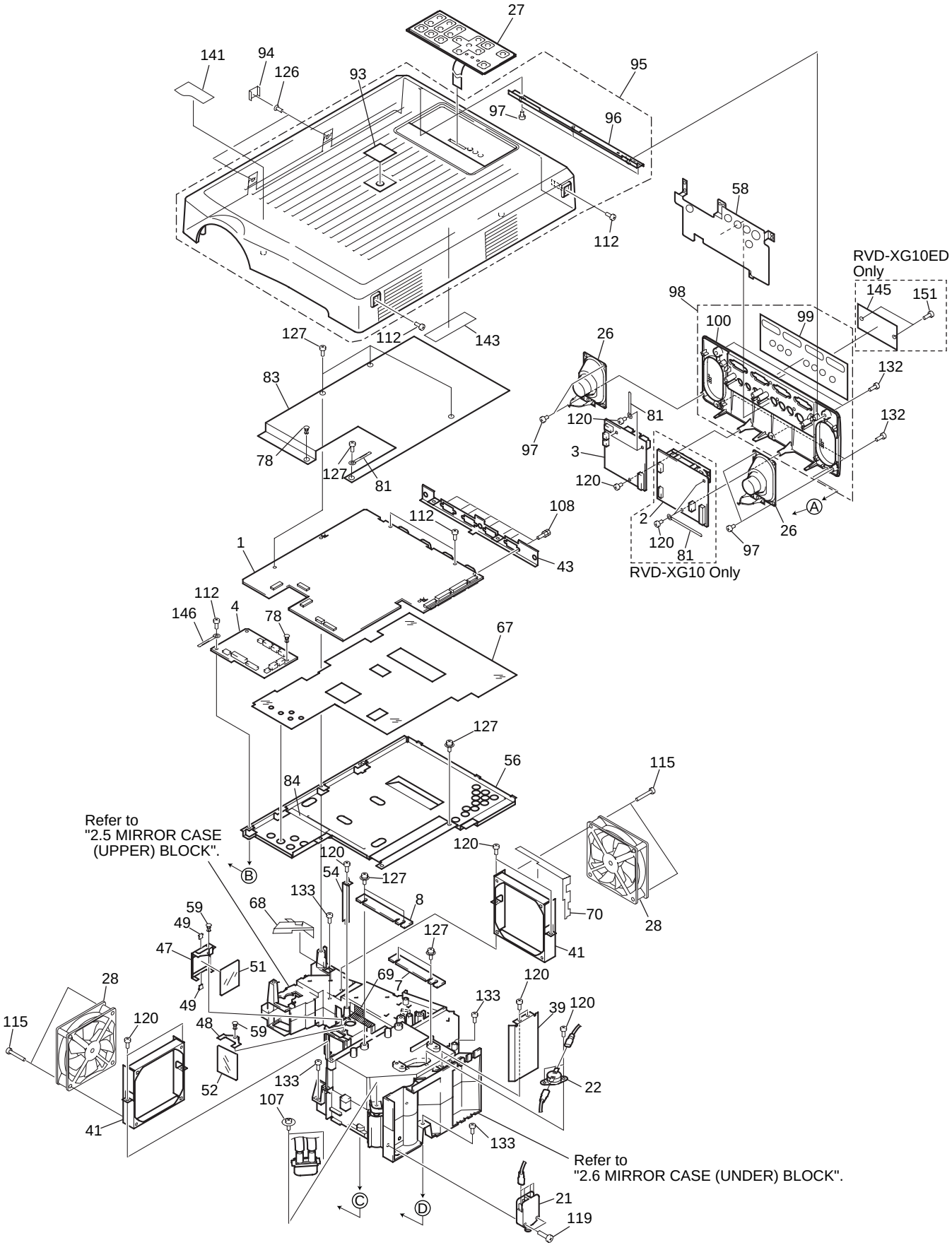
● Video Circuit Kit



Note : For the detailed installation of the Video Circuit Kit, refer to the Video Caution (ORDER NO. ARM9008).

2.3 EXTERIOR SECTION




RVD-XG10ED Only
RVD-XG10 Only
Refer to "2.5 MIRROR CASE (UPPER) BLOCK".
Refer to "2.6 MIRROR CASE (UNDER) BLOCK".

(1) EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	MAIN ASSY	AWV9024
	2	VIDEO ASSY	See Contrast table (2)
	3	AUDIO ASSY	AWZ9027
	4	MOTOR DRIVE ASSY	AWZ9039
	5	FRONT RECEIVER ASSY	AWZ9029
⚠	6	Fuse (FU6501 : 6.3A/250V)	AZE9004
	7	LEAD SUPPORT A ASSY	AWZ9033
	8	LEAD SUPPORT B ASSY	AWZ9034
	9	REAR RECEIVER ASSY	AWZ9037
⚠	10	LAMP BALLAST ASSY	AWV9027
⚠	11	DC POWER SUPPLY ASSY	AXY9010
⚠	12	AC FILTER ASSY	AXY9012
	13	TEMP. SENSOR ASSY	AWZ9032
⚠	14	DATA LINE FILTER (L2201,L2202)	BTX1008
NSP	15	BUTTON FIXED FITTING	ANG9019
NSP	16	SCREW	ABA9015
NSP	17	LAMP HANDLE	ANG9020
NSP	18	FRONT ESCUTCHEON	AAK9002
NSP	19	ESCUTCHEON SUPPORT	AAK9036
	20	BINDER	AEC-093
⚠	21	INTERLOCK SWITCH(S2301)	ASN9001
⚠	22	THERMOSTAT (S2302)	AST9004
⚠	23	POWER SWITCH (S2303)	BSM1006
⚠	24	AC SOCKET 1P	AKP9010
	25	LAMP SERVICE ASSY	AXX9007
	26	SPEAKER	APV9002
	27	MEMBRANE SWITCHES	ASX9001
	28	FAN MOTOR (92 x 92)	AXM9002
	29	FAN MOTOR (80 x 80)	AXM9013
	30	FAN MOTOR	AXM9015
	31	CABINET ASSY(UNDER)	See Contrast table (2)
	32	ADJUSTER ASSY	AMR9178
	33	SUPPORTING BOSS	ABE9001
	34	ADJUSTER SPRING	ABH9001
NSP	35	ADJUSTER HOLDER	ANG9018
	36	ADJUSTER BUTTON	See Contrast table (2)
	37	HANDLE	AMR9148
NSP	38	HANDLE PIVOT	ANG9022
NSP	39	BLIND PLATE	ANG9060
	40	HOOK PLATE	ANG9050
NSP	41	FAN HOLDER	ANG9061
	42	INLET HOLDER	ANG9083
	43	D-SUB HOLDER	ANG9063
	44	PCB HOLDER	ANG9064
NSP	45	POWER SUPPLY BOX(SIDE)	ANG9082
NSP	46	POWER SUPPLY BOX (UNDER)	ANG9068
	47	POLARIZER HOLDER (G)	ANG9069
	48	POLARIZER HOLDER (B)	ANG9070
	49	POLARIZER HOLDER SP	ANG9071
NSP	50	LAMP SPRING	ANG9074
	51	POLARIZER ASSY (G)	AMR9169
	52	ND FILTER	AMR9188
NSP	53	S FAN HOLDER	ANG9076
NSP	54	BLIND PLATE 4	ANG9079
	55	HOLDER	ANG9081
NSP	56	SHIELD CASE (UNDER)	ANK9011
NSP	57	AIR FILTER D	AED9010
NSP	58	REAR EARTH PLATE	ANK9018
	59	NYLON RIVET	AEC1160
	60	BLIND SHEET	AEC9021
NSP	61	INSULATION SHEET 1	AEC9039
NSP	62	INSULATION SHEET 2	AEC9040
NSP	63	INSULATION SHEET 3	AEC9041
NSP	64	INSULATION SHEET BOT	AEC9044
NSP	65	INSULATION SHEET	AEC9045
	66	AC INSULATION SHEET	AEC9051
	67	INSULATION SHEET (UNDER)	AEC9053
	68	DUCT (RED)	AEC9058
	69	WIND SHIELD	AEC9060
	70	WIND SHIELD (REAR)	AEC9062
	71	WIND SHIELD B	AEC9063
NSP	72	INSULATION SHEET 5	AEC9065
	73	WIND SHIELD C	AEC9066
	74	WIND SHIELD D	AEC9067
NSP	75	INSULATION SHEET 4	AEC9069
NSP	76	CUSHION S	AEC9070
	77	AC INSULATION SHEET 2	AEC9071
	78	PUSH RIVET	AEC9073
	79	WIND SHIELD (POWER SUP)	AEC9074
NSP	80	WASHER	AED9009
	81	BINDER	AEP-215
NSP	82	DC SHIELD ASSY	ANK9014
NSP	83	SHIELD SHEET (UPPER)	ANK9021
NSP	84	GASKET	ANK9019
NSP	85	EDGING SADDLE (S)	DEC1761
	86	EDGING SADDLE (17L)	DEC1762
NSP	87	PCB HOLDER	PNW1706
NSP	88	AIR FILTER S	AED9012
NSP	89	AIR FILTER F	AED9013
NSP	90	LAMP CASE	AMR9161
	91	SCREW	CPZ30P080FZK
NSP	92	FRONT ESCUTCHEON ASSY	AAK9037
NSP	93	TOP NAME PLATE	AAM9010
	94	BLIND CAP	See Contrast table (2)
	95	CABINET ASSY (UPPER)	See Contrast table (2)
	96	CABINET HOLDER	ANG9065
	97	SCREW	BPZ30P060FMC
	98	REAR PANEL ASSY	See Contrast table (2)
	99	TERMINAL PLATE	See Contrast table (2)
NSP	100	REAR PANEL	See Contrast table (2)
NSP	101	INTAKE COVER (BOTTOM)	See Contrast table (2)
	102	INTAKE COVER B ASSY	See Contrast table (2)
	103	• • • • •	
	104	LAMP COVER ASSY	See Contrast table (2)
	105	WASHER	WT30D080D050
	106	SCREW (3 x 8)	ABA9005
	107	SCREW (3 x 12)	ABA9009
	108	SCREW	ABA9010
NSP	109	DECORATION SCREW	ABA9014
	110	NUT (M5)	ABN9001
	111	SCREW	BBF30P080FZK
	112	SCREW	BBZ30P080FZK
	113	SCREW	BBZ30P180FMC
	114	SCREW	BBZ30P250FMC
	115	SCREW	BBZ30P300FMC
	116	SCREW	BBZ40P100FZK
	117	• • • • •	
	118	SCREW	BMZ40P120FNI
	119	SCREW	BMZ40P180FZK
	120	SCREW	BPZ30P080FMC

Mark	No.	Description	Part No.
	121	• • • • •	
	122	• • • • •	
	123	SCREW	BPZ40P080FZK
	124	SCREW	CSZ30P050FZK
	125	SCREW	CBZ30P080FMC
	126	SCREW	CBZ40P080FMC
	127	SCREW	PMB30P080FMC
	128	SCREW	PMB40P080FMC
	129	SCREW	PMB40P100BNI
	130	• • • • •	
	131	SCREW	PPZ40P120FMC
	132	SCREW	VPZ30P080FZK
	133	SCREW	VPZ40P140FZK
	134	SCREW	VPZ40P250FZK
	135	PUSH NUT	YP20FAC
	136	LENS CAP ASSY	AAK9034
	137	NYLON RIVET	AEC-525
	138	LAMP CAUTION LABEL	See Contrast table (2)
	139	LAMP PART No. LABEL	AAX9037
	140	FUSE CAUTION LABEL	AAX9038
	141	LENS CAUTION LABEL	See Contrast table (2)
	142	INTERLOCK CAUTION LABEL	See Contrast table (2)
	143	65 LABEL	ORW1069
	144	BINDER	AEC-826
	145	BLIND SHEET	See Contrast table (2)
	146	BINDER	AEF9001
NSP	147	CAUTION LABEL (EARTH)	AAX9023
NSP	148	LAMP COVER SHIELD	ANK9020
	149	SCREW	PMA40P120BNI
	150	• • • • •	
	151	SCREW (RVD-XG10ED ONLY)	PBZ30P080FZK

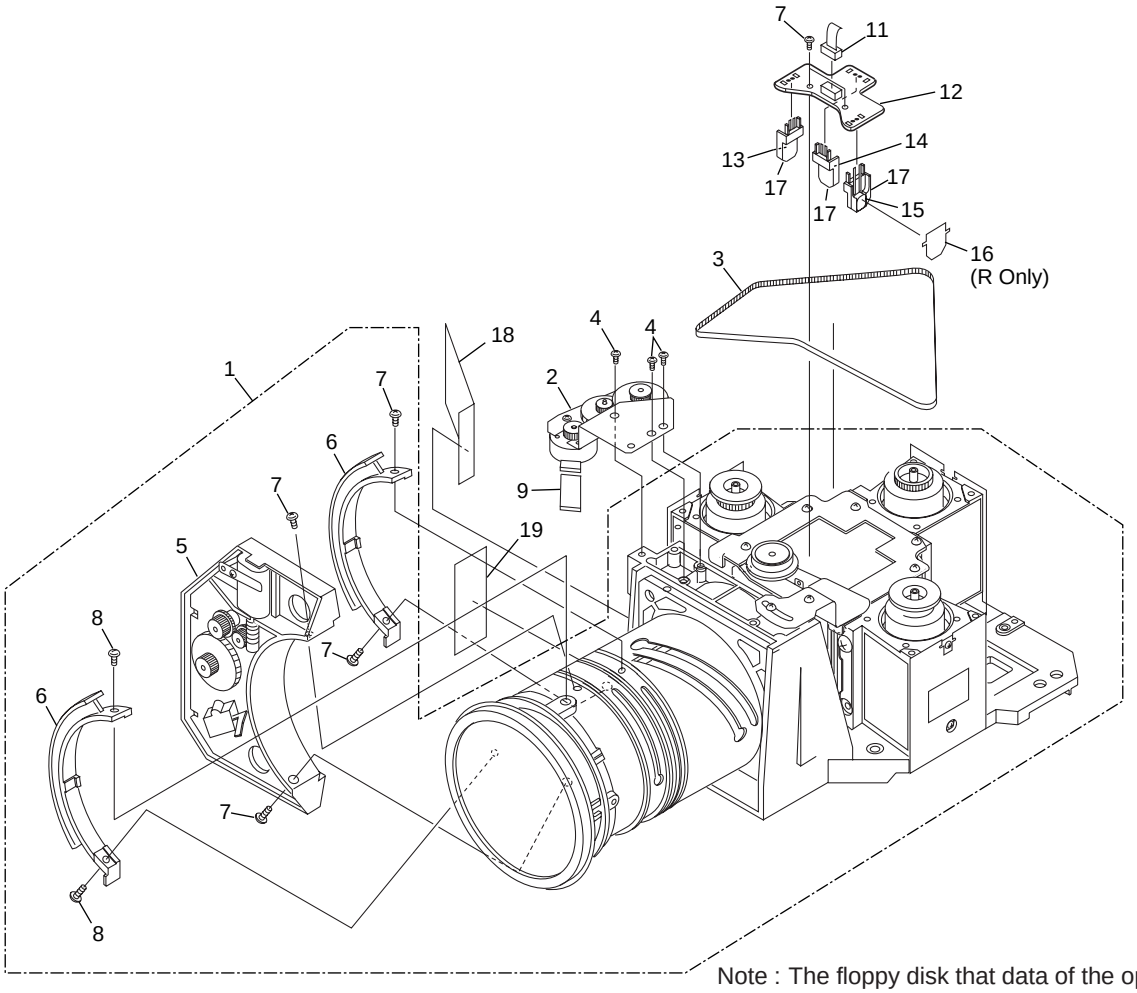
Mark	No.	Description	Part No.
OTHERS			
		GROUND WIRE (J2829)	ADX2332
		3P HOUSING WIRE (J2804)	ADX9096
		4P HOUSING WIRE (J2805)	ADX9097
		3P HOUSING WIRE (J2806)	ADX9098
		12P HOUSING WIRE (J2807)	ADX9099
		12P HOUSING WIRE (J2808)	ADX9100
		4P HOUSING WIRE (J2809)	ADX9101
		3P HOUSING WIRE (J2811)	ADX9103
		3P HOUSING WIRE (J2812)	ADX9104
		12P HOUSING WIRE (J2814)	ADX9106
		8P HOUSING WIRE (J2815)	ADX9107
		4P HOUSING WIRE (J2816)	ADX9108
		10P HOUSING WIRE (J2817)	ADX9109
		2P HOUSING WIRE (J2818)	ADX9110
		3P HOUSING WIRE (J2819)	ADX9111
		4P HOUSING WIRE (J2820)	ADX9112
		2P HOUSING WIRE (J2821)	ADX9113
		8P HOUSING WIRE (J2822)	ADX9114
		3P HOUSING WIRE (J2823)	ADX9115
		4P HOUSING WIRE (J2824)	ADX9116
		2P LEAD WIRE (J2826)	ADX9144
		2P HOUSING WIRE (2827)	ADX9146
		11P HOUSING WIRE (J2810)	ADX9148
		EARTH LEAD (J2829)	ADX9150
		EARTH LEAD (2828,2830)	ADX9151

(2) CONTRAST TABLE

RVD-XG10/TUCYL and RVD-XG10ED/TUCYL have the same construction except for the following:

Mark	No.	Symbol and Description	Part No.		Remarks
			RVD-XG10/TUCYL	RVD-XG10ED/TUCYL	
	2	VIDEO ASSY	AWZ9026	Not used	
	31	CABINET ASSY (UNDER)	AMA9020	AMA9021	
	36	ADJUSTER BUTTON	AAD9013	AAD9013	
	94	BLIND CAP	AAK9039	AAK9041	
	95	CABINET ASSY (UPPER)	AME9021	AME9022	
	98	REAR PANEL ASSY	AMC9005	AMC9006	
	99	TERMINAL PLATE	AAK9038	AAK9040	
NSP	100	REAR PANEL	AMC9001	AMC9004	
NSP	101	INTAKE COVER (BOTTOM)	AMF9009	AMF9026	
	102	INTAKE COVER B ASSY	AMF9033	AMF9034	
	104	LAMP COVER ASSY	AMF9031	AMF9032	
	138	LAMP CAUTION LABEL	AAX9069	AAX9059	
	141	LENS CAUTION LABEL	AAX9051	AAX9010	
	142	INTER LOCK CAUTION LABEL	AAX9057	AAX9056	
	145	BLIND SHEET	Not used	AEC9068	

2.4 OPTICAL BLOCK

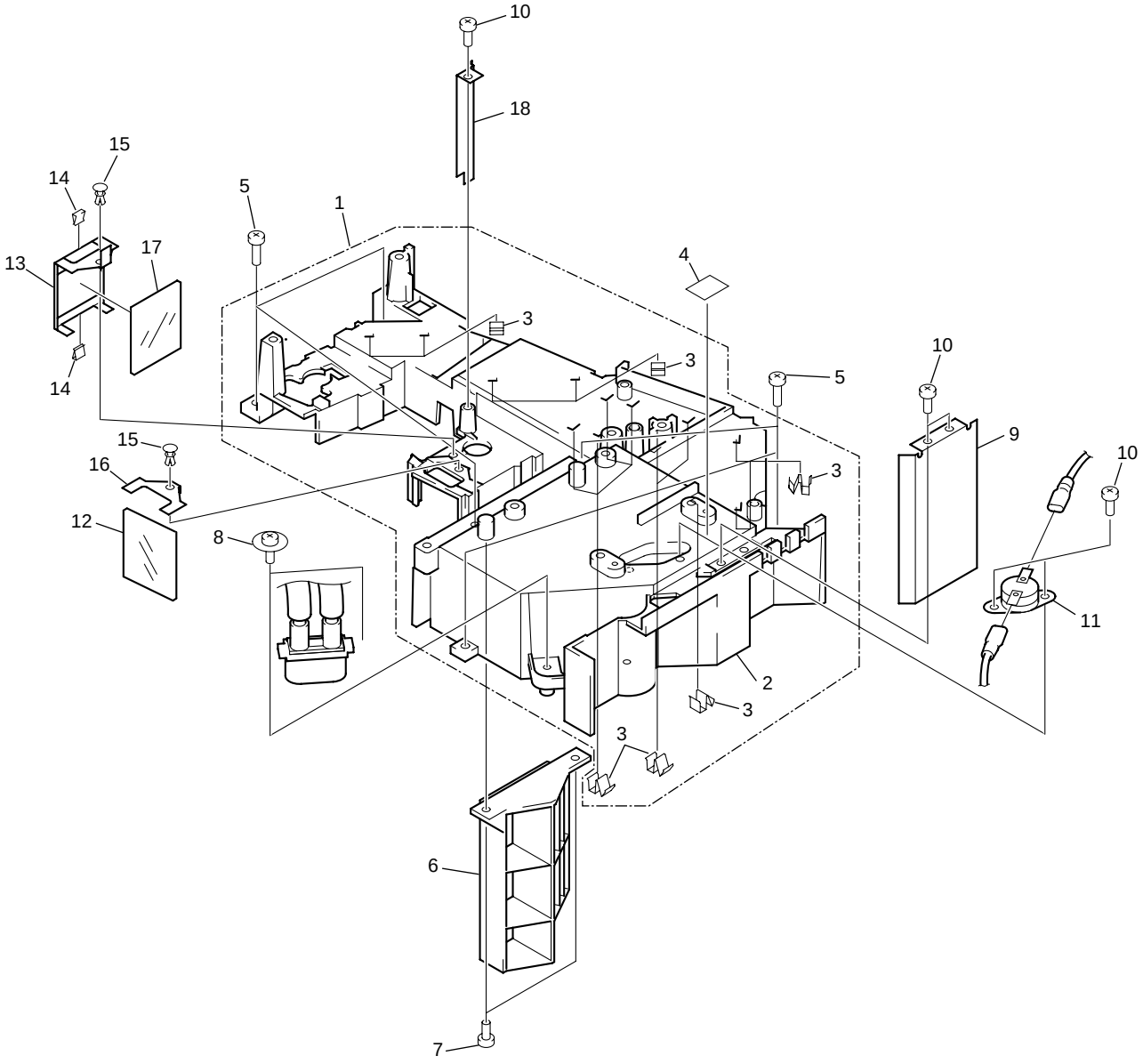


Note : The floppy disk that data of the optical part are written is attached to the OPTICAL BLOCK SERVICE ASSY. (It is used for the adjustment when replacing the OPTICAL BLOCK SERVICE ASSY.)

● OPTICAL BLOCK PARTS LIST

Mark	No.	Description	Part No.
	1	OPTICAL BLOCK SERVICE ASSY	AXX9010
	2	GEAR BOX ASSY	AXA9001
	3	TIMING BELT	AEC9005
	4	SCREW	BMZ30P060FZK
	5	POWER ZOOM ASSY	AXA9011
	6	LENS HOLDER GEAR	AMR9081
	7	SCREW	PMM30P050FMC
	8	SCREW	BPZ30P060FZK
	9	JUMP WIRE(J2801)	ADD9001
	10	•••••	
	11	6P HOUSING WIRE (J2813)	ADX9105
	12	FLICKER CONNECT ASSY	AWZ9030
	13	PHOTO DIODE(B)(D2101)	S6428
	14	PHOTO DIODE(G)(D2102)	S6429
	15	PHOTO DIODE(R)(D2103)	S6430
NSP	16	COLOR FILTER	AMR9179
NSP	17	SENSOR HOLDER	AMR9156
	18	BLIND PLATE	AEC9003
	19	PVC SHEET	AEC9011

2.5 MIRROR CASE (UPPER) BLOCK

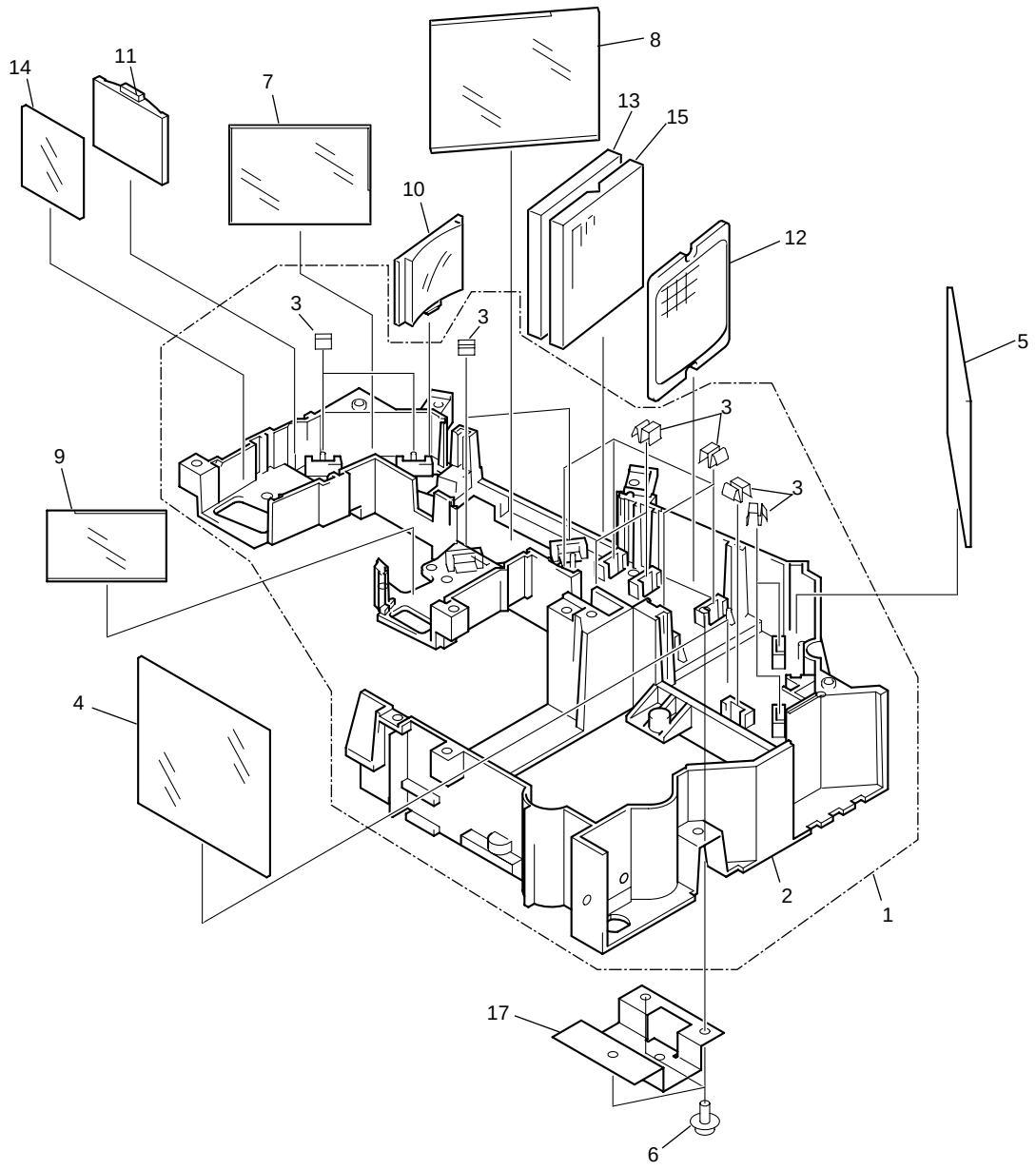


● MIRROR CASE BLOCK (UPPER) PARTS LIST

Mark	No.	Description	Part No.
NSP	1	MIRROR UPPER CASE ASSY	AMR9157
NSP	2	MIRROR UPPER CASE	AMR9159
	3	MIRROR FIXED SPRING	ANG9008
	4	SERVICE CAUTION LABEL	AAX9035
	5	SCREW	BPZ30P120FMC
NSP	6	BLIND FIN	AMR9164
	7	SCREW	BPZ30P100FMC
	8	SCREW (WITH WASHER)	ABA9009
NSP	9	BLIND PLATE	ANG9060
	10	SCREW	BPZ30P080FMC
	11	THERMOSTAT (S9302)	AST9004
	12	ND FILTER	AMR9188
	13	POLARIZER HOLDER (G)	ANG9069
	14	POLARIZER HOLDER SP	ANG9071
	15	NYLON RIVET	AEC1160
	16	POLARIZER HOLDER (B)	ANG9070
	17	POLARIZER ASSY (G)	AMR9169
NSP	18	BLIND PLATE 4	ANG9079

2.6 MIRROR CASE (UNDER) BLOCK

Note : Refer to page 104 for installing the mirror and the lens.



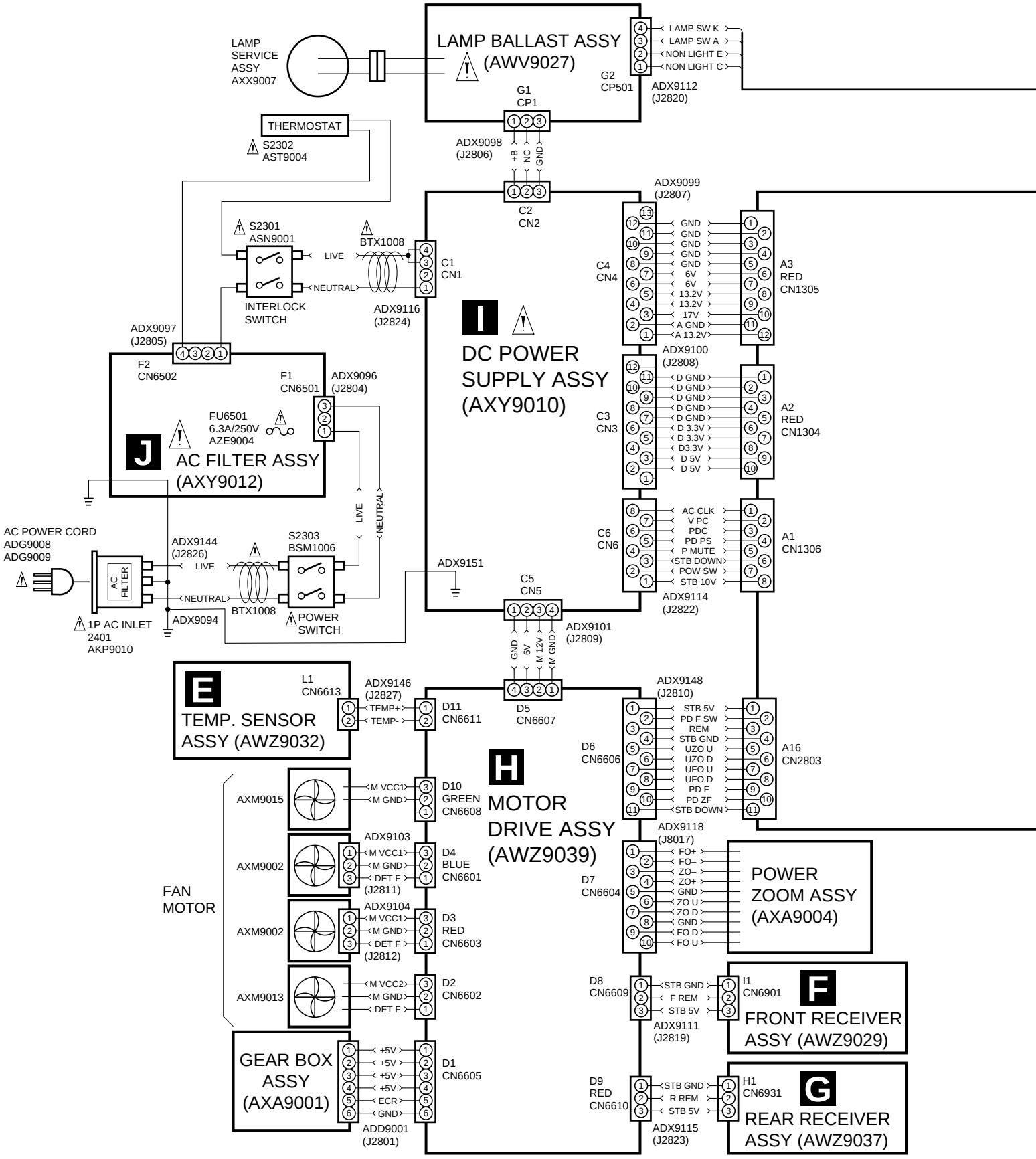
● MIRROR CASE BLOCK (UNDER) PARTS LIST

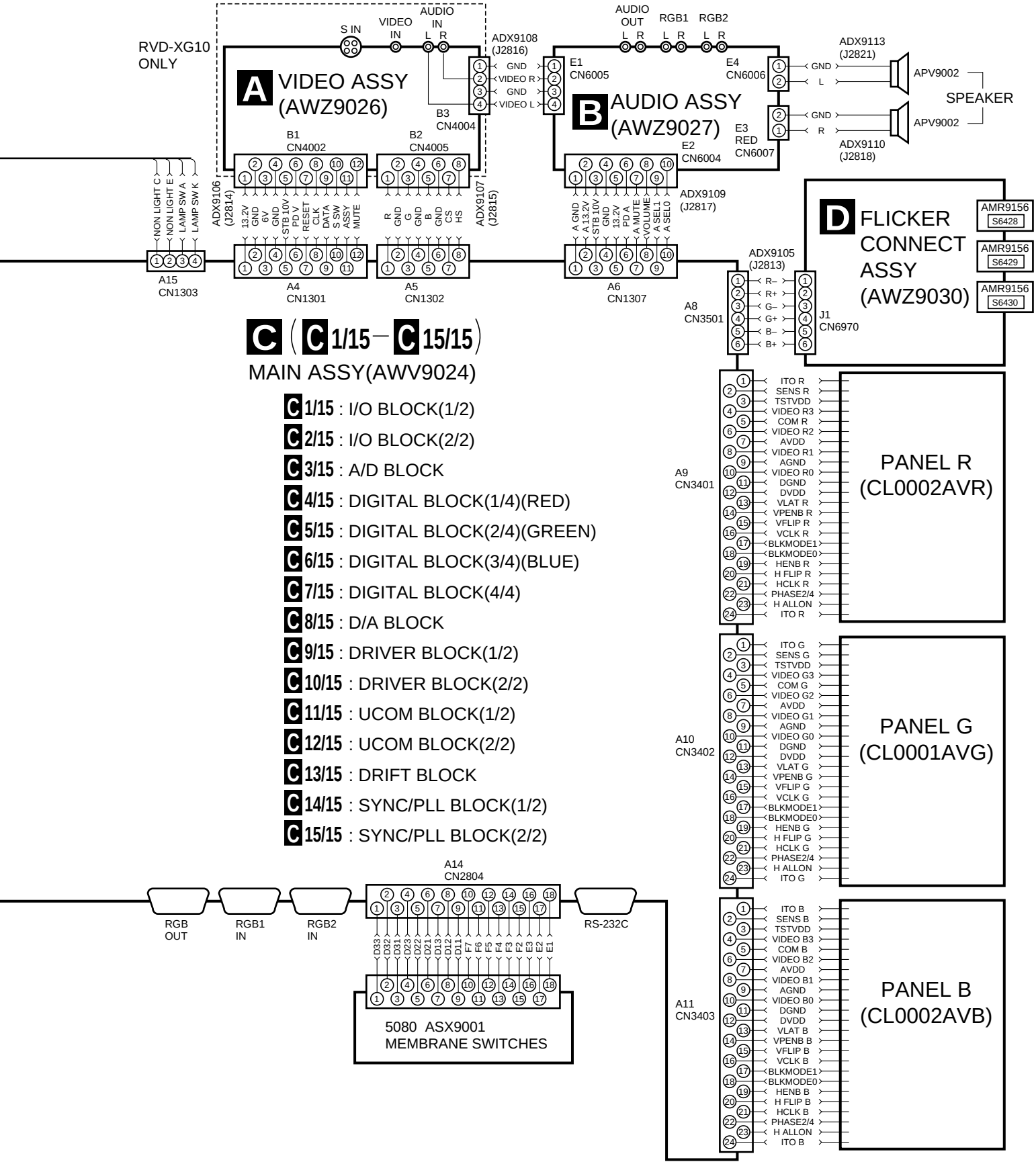
Mark	No.	Description	Part No.
NSP	1	MIRROR UNDER CASE ASSY	AMR9158
NSP	2	MIRROR UNDER CASE	AMR9160
	3	MIRROR FIXED SPRING	ANG9008
	4	LAMP FRONT GLASS	AMR9171
	5	ALUMINUM MIRROR	AMR9172
	6	SCREW	PMB40P080FMC
	7	DICHROIC MIRROR(R)	AMR9175
	8	DICHROIC MIRROR(C)	AMR9173
	9	DICHROIC MIRROR(G)	AMR9174
NSP	10	CONDENSER LENS 1	AMR9166
NSP	11	CONDENSER LENS 2	AMR9167
	12	1 ST. INTEGRATOR	AMR9162
	13	2ND. INTEGRATOR	AMR9163
	14	POLARIZER ASSY (R)	AMR9168
	15	PS CONVERSION SERVICE ASSY	AXX9009
	16	• • • • •	
NSP	17	SUPPORTING FITTING	ANG9028

3. SCHEMATIC DIAGRAM

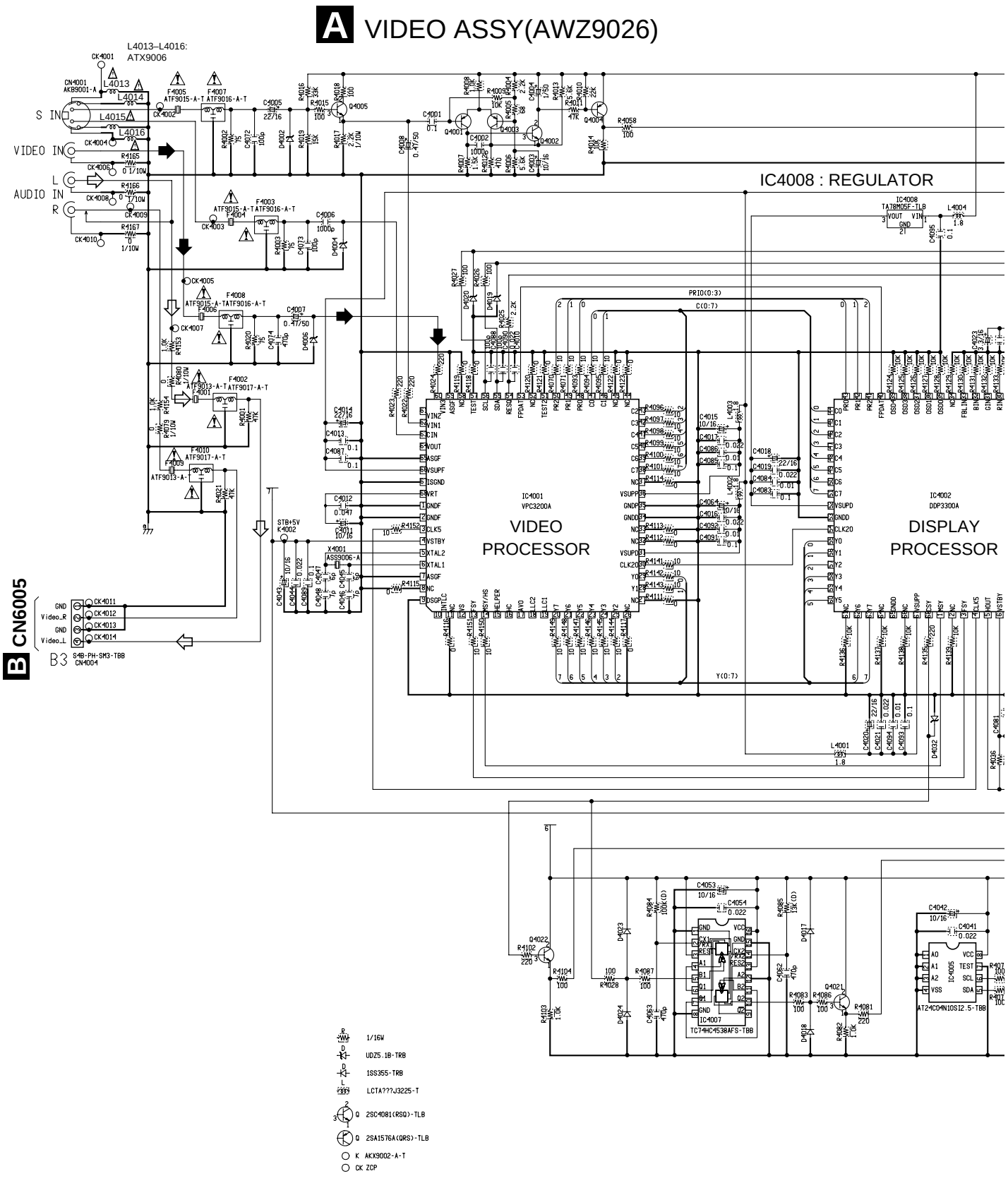
3.1 OVERALL CONNECTION DIAGRAM

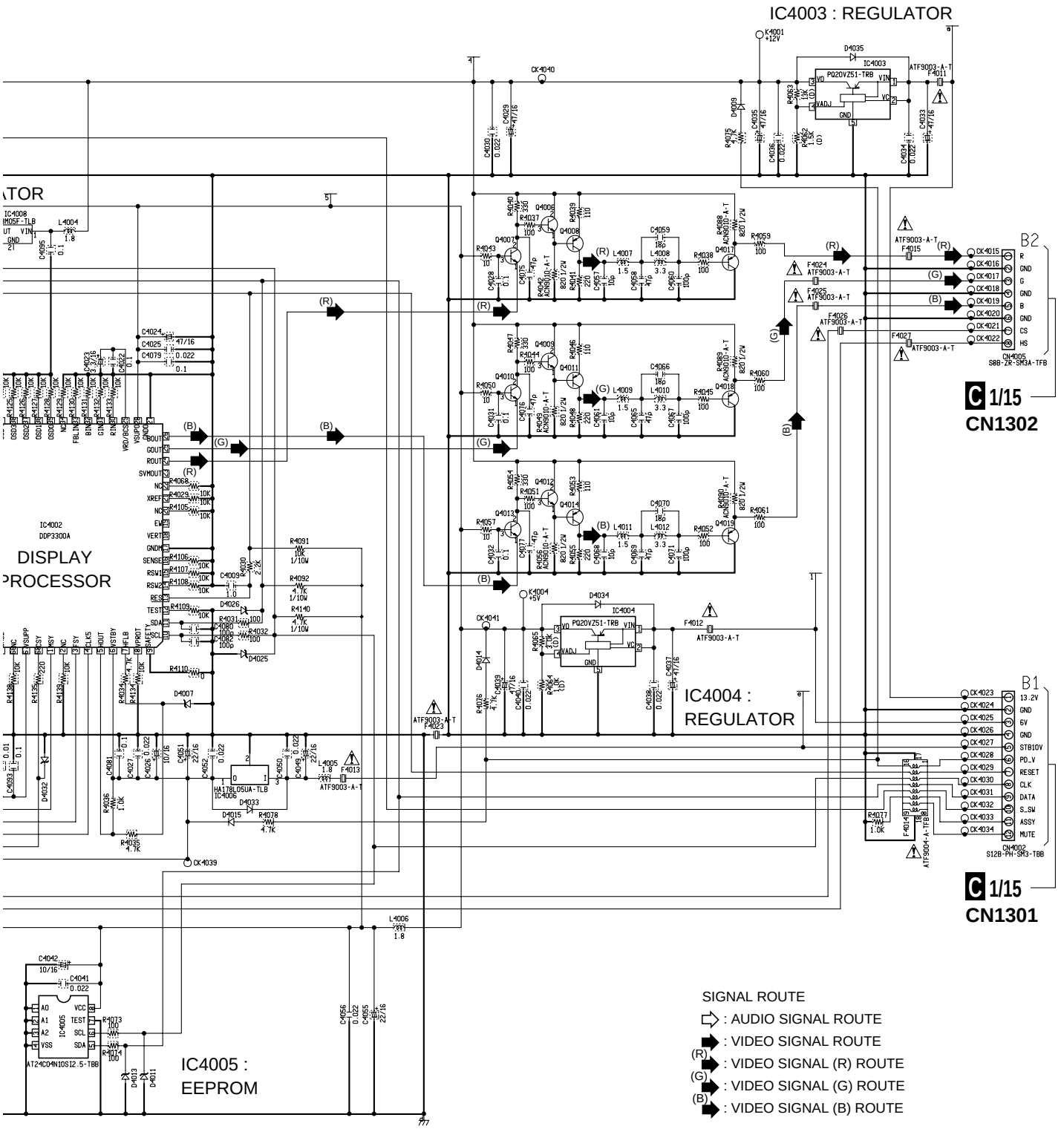
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



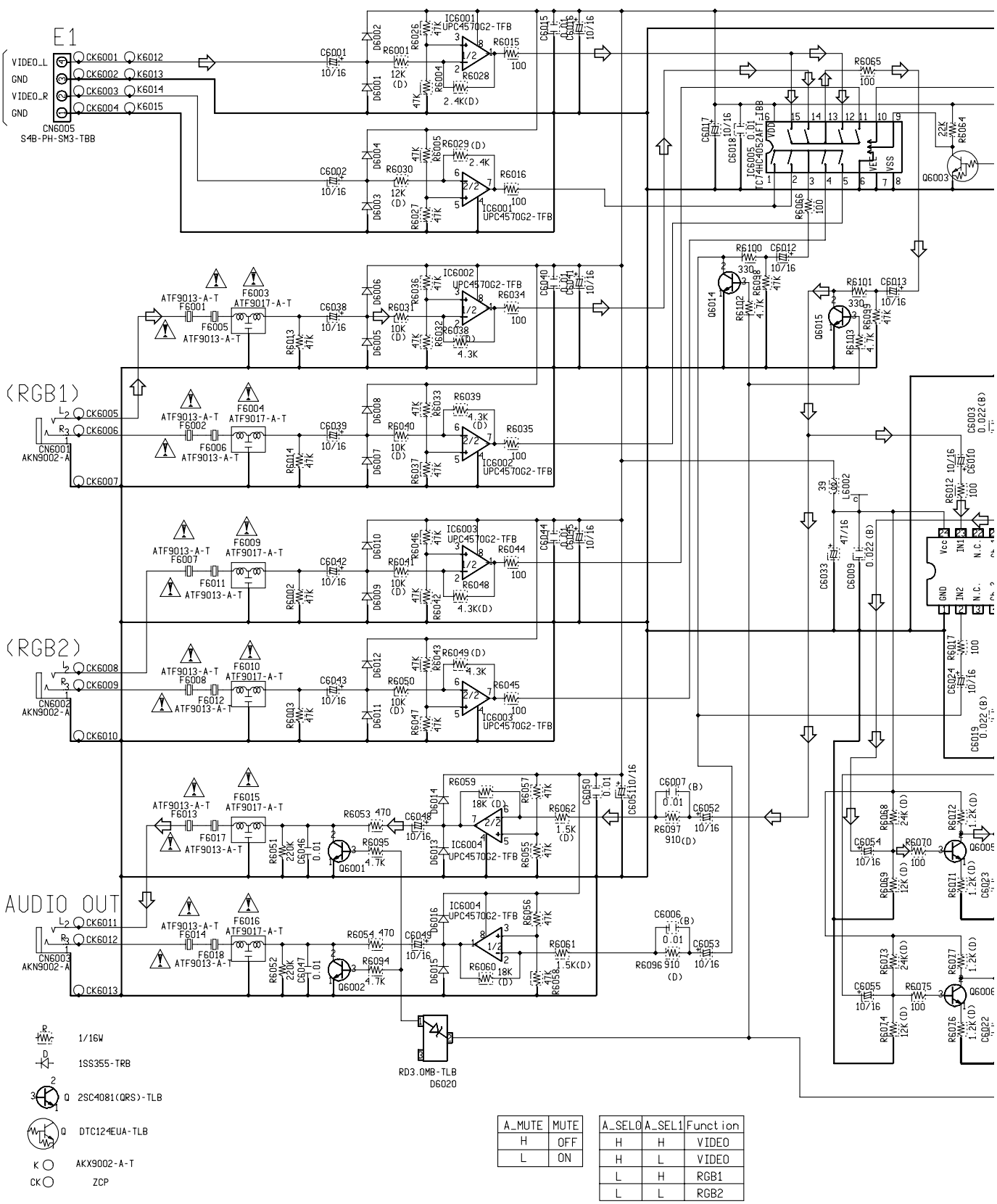

RVD-XG10 ONLY
A VIDEO ASSY (AWZ9026)
S IN
VIDEO IN
AUDIO IN L R
ADX9108 (J2816)
GND
VIDEO R
GND
VIDEO L
B3 CN4004
B AUDIO ASSY (AWZ9027)
AUDIO OUT L R
RGB1 L R
RGB2 L R
E1 CN6005
E2 CN6004
E3 RED CN6007
E4 CN6006
ADX9113 (J2821)
APV9002
SPEAKER
APV9002
ADX9110 (J2818)
B1 CN4002
B2 CN4005
ADX9106 (J2814)
NON LIGHT C
NON LIGHT E
LAMP SW A
LAMP SW K
13.2V GND 6V GND STB 10V PD V RESET CLK DATA S SW ASSY MUTE
R GND G GND B GND CS HS
ADX9107 (J2815)
A GND A 13.2V STB 10V GND 13.2V PD A A MUTE VOLUME A SEL1 A SEL0
ADX9109 (J2817)
A15 CN1303
A4 CN1301
A5 CN1302
A6 CN1307
D FLICKER CONNECT ASSY (AWZ9030)
AMR9156 S6428
AMR9156 S6429
AMR9156 S6430
ADX9105 (J2813)
R– R+ G– G+ B– B+
A8 CN3501
J1 CN6970
C (C 1/15 – C 15/15)
MAIN ASSY(AWV9024)
C 1/15 : I/O BLOCK(1/2)
C 2/15 : I/O BLOCK(2/2)
C 3/15 : A/D BLOCK
C 4/15 : DIGITAL BLOCK(1/4)(RED)
C 5/15 : DIGITAL BLOCK(2/4)(GREEN)
C 6/15 : DIGITAL BLOCK(3/4)(BLUE)
C 7/15 : DIGITAL BLOCK(4/4)
C 8/15 : D/A BLOCK
C 9/15 : DRIVER BLOCK(1/2)
C 10/15 : DRIVER BLOCK(2/2)
C 11/15 : UCOM BLOCK(1/2)
C 12/15 : UCOM BLOCK(2/2)
C 13/15 : DRIFT BLOCK
C 14/15 : SYNC/PLL BLOCK(1/2)
C 15/15 : SYNC/PLL BLOCK(2/2)
A9 CN3401
ITO R SENS R TSTVDD VIDEO R3 COM R VIDEO R2 AVDD VIDEO R1 AGND VIDEO R0 DGND DVDD VLAT R VPENB R VFLIP R VCLK R BLKMODE1 BLKMODE0 HENB R H FLIP R HCLK R PHASE2/4 H ALLON ITO R
PANEL R (CL0002AVR)
A10 CN3402
ITO G SENS G TSTVDD VIDEO G3 COM G VIDEO G2 AVDD VIDEO G1 AGND VIDEO G0 DGND DVDD VLAT G VPENB G VFLIP G VCLK G BLKMODE1 BLKMODE0 HENB G H FLIP G HCLK G PHASE2/4 H ALLON ITO G
PANEL G (CL0001AVG)
A11 CN3403
ITO B SENS B TSTVDD VIDEO B3 COM B VIDEO B2 AVDD VIDEO B1 AGND VIDEO B0 DGND DVDD VLAT B VPENB B VFLIP B VCLK B BLKMODE1 BLKMODE0 HENB B H FLIP B HCLK B PHASE2/4 H ALLON ITO B
PANEL B (CL0002AVB)
A14 CN2804
RGB OUT
RGB1 IN
RGB2 IN
RS-232C
D33 D32 D31 D23 D22 D21 D13 D12 D11 F7 F6 F5 F4 F3 F2 E3 E2 E1
5080 ASX9001 MEMBRANE SWITCHES

3.2 VIDEO ASSY (RVD-XG10 ONLY)




IC4003 : REGULATOR
IC4004 : REGULATOR
IC4005 : EEPROM
IC4002 DDP3300A DISPLAY PROCESSOR
C 1/15 CN1302
C 1/15 CN1301
SIGNAL ROUTE
: AUDIO SIGNAL ROUTE
: VIDEO SIGNAL ROUTE
(R) : VIDEO SIGNAL (R) ROUTE
(G) : VIDEO SIGNAL (G) ROUTE
(B) : VIDEO SIGNAL (B) ROUTE

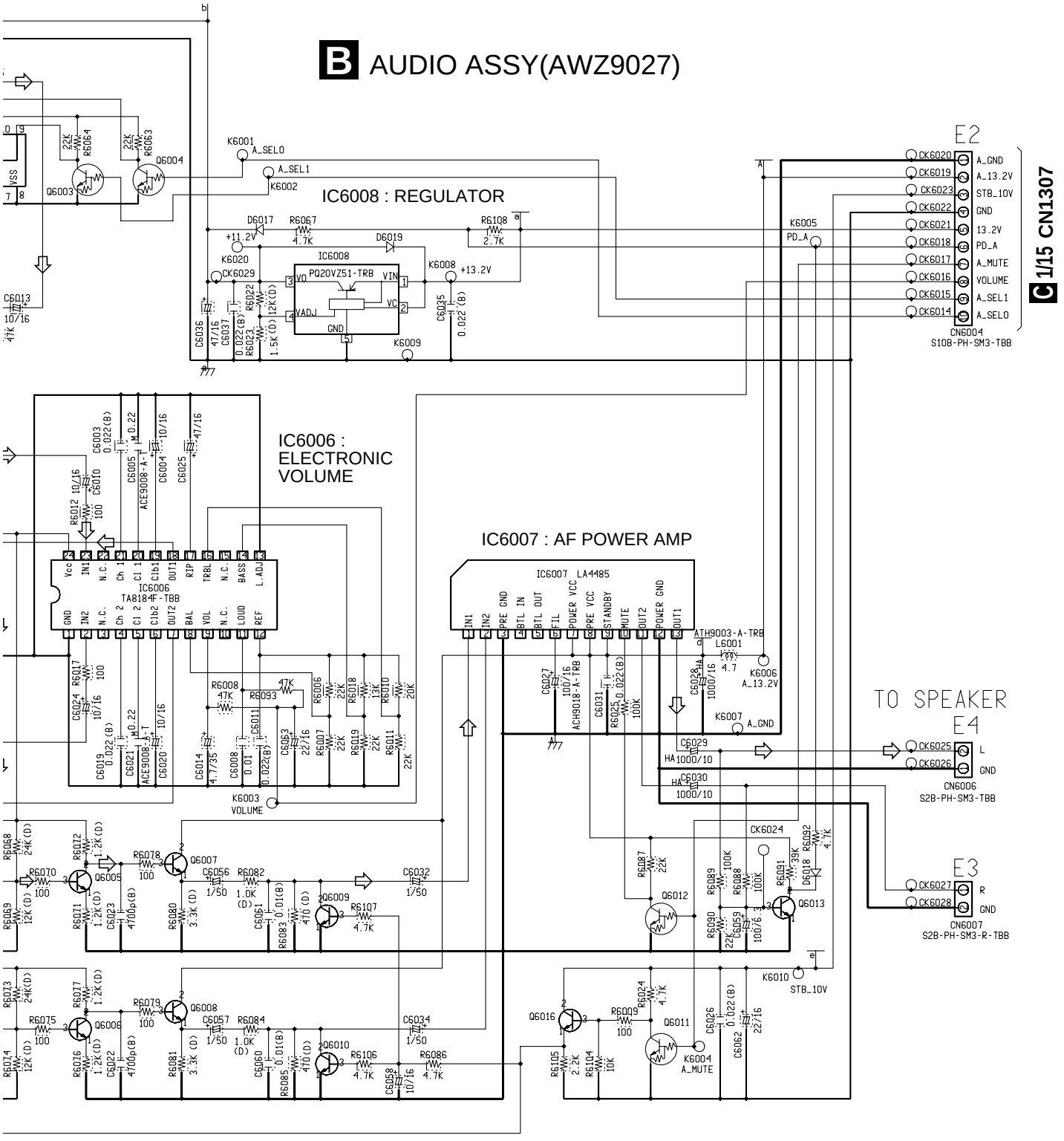
3.3 AUDIO ASSY



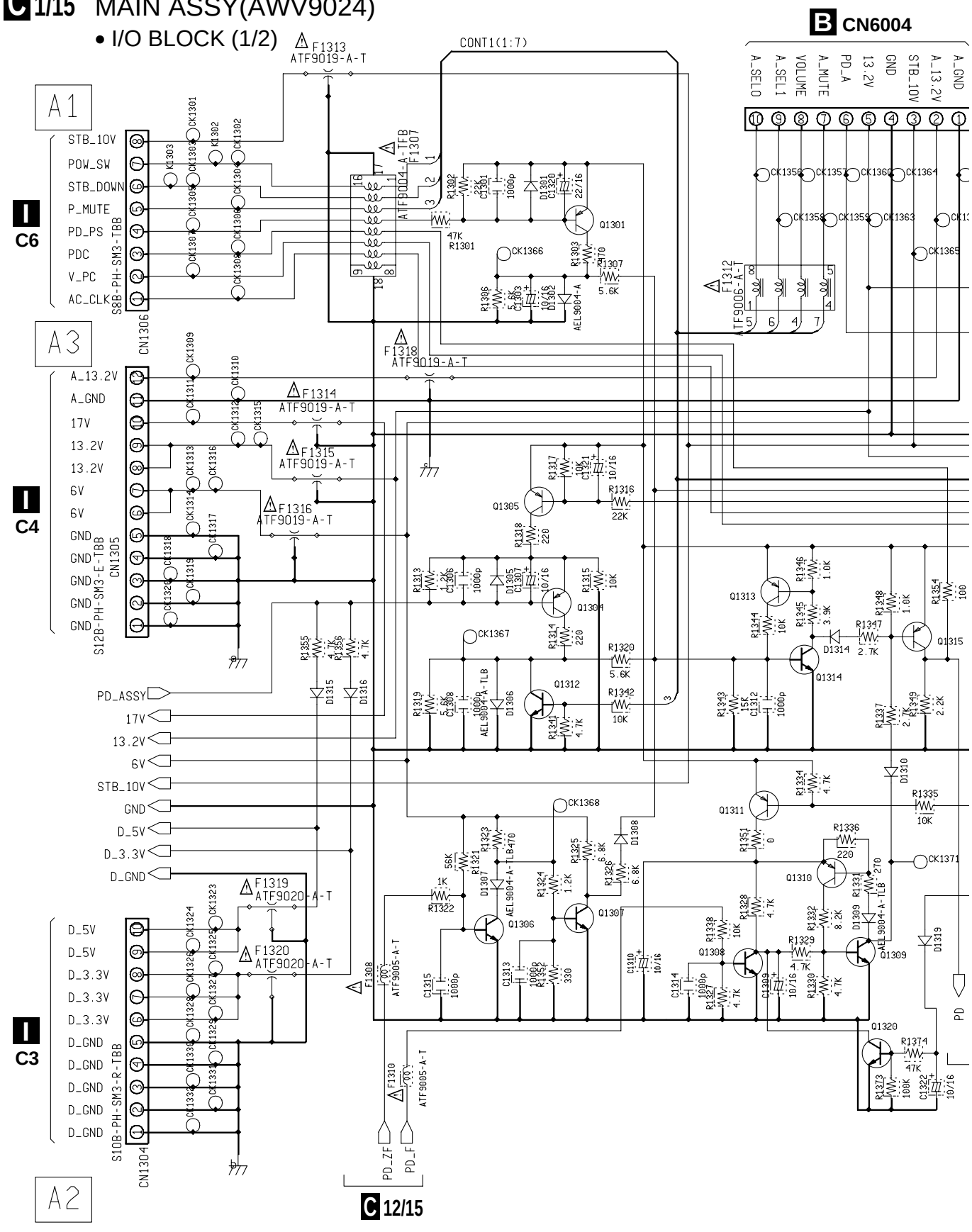
A_MUTE	MUTE
H	OFF
L	ON

A_SEL0	A_SEL1	Function
H	H	VIDEO
H	L	VIDEO
L	H	RGB1
L	L	RGB2

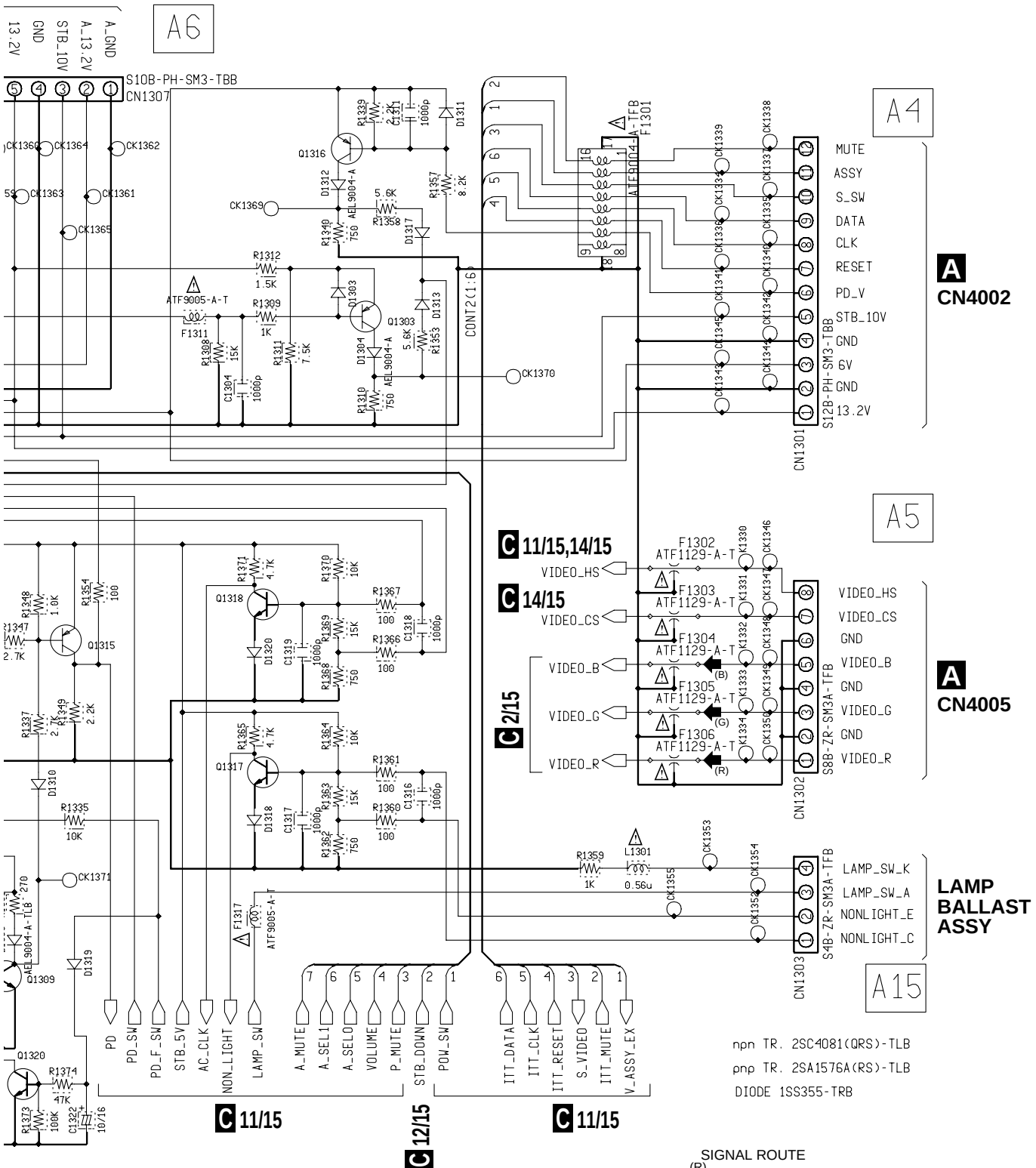
B AUDIO ASSY(AWZ9027)



3.4 MAIN ASSY (1/15)

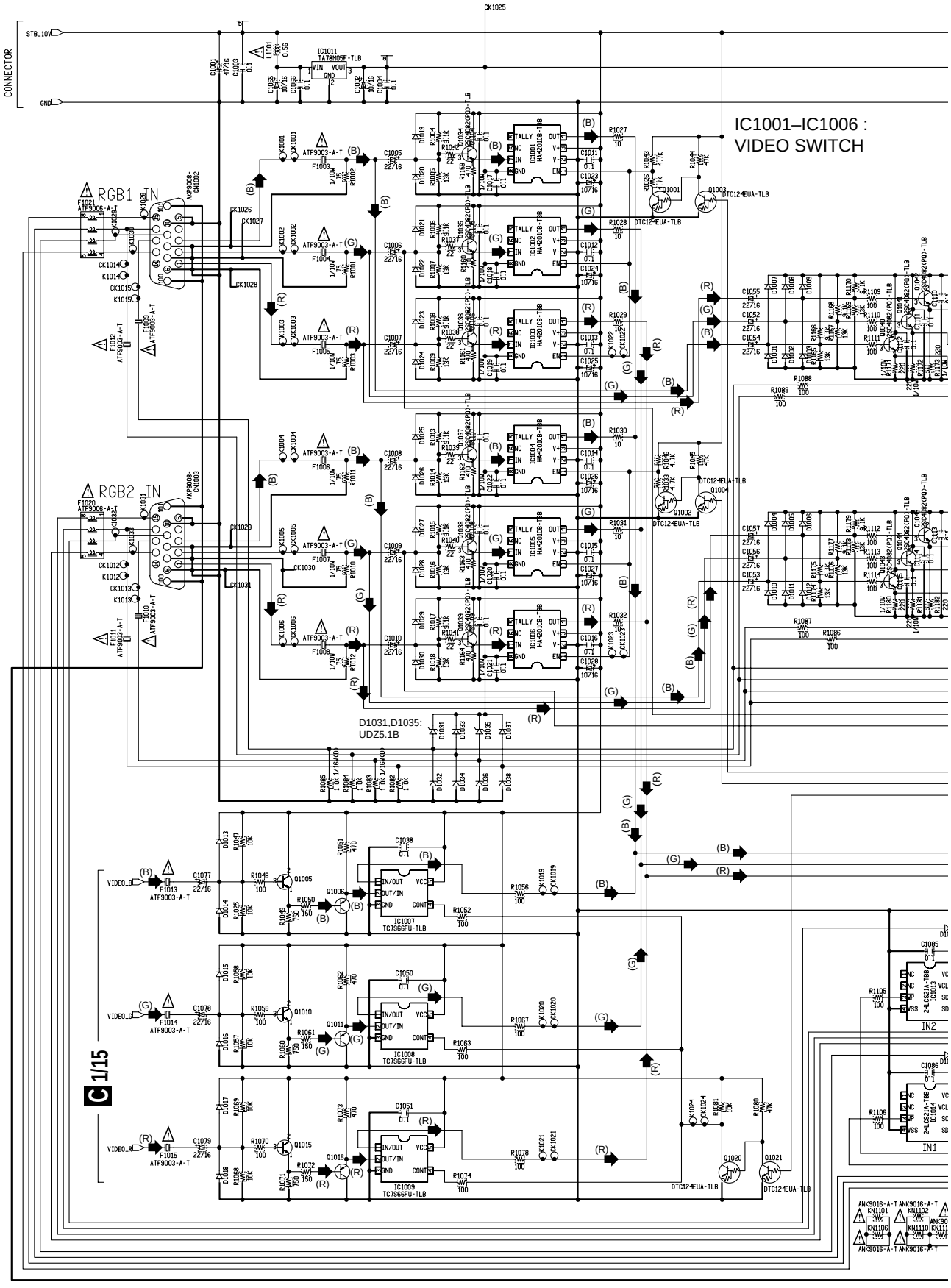


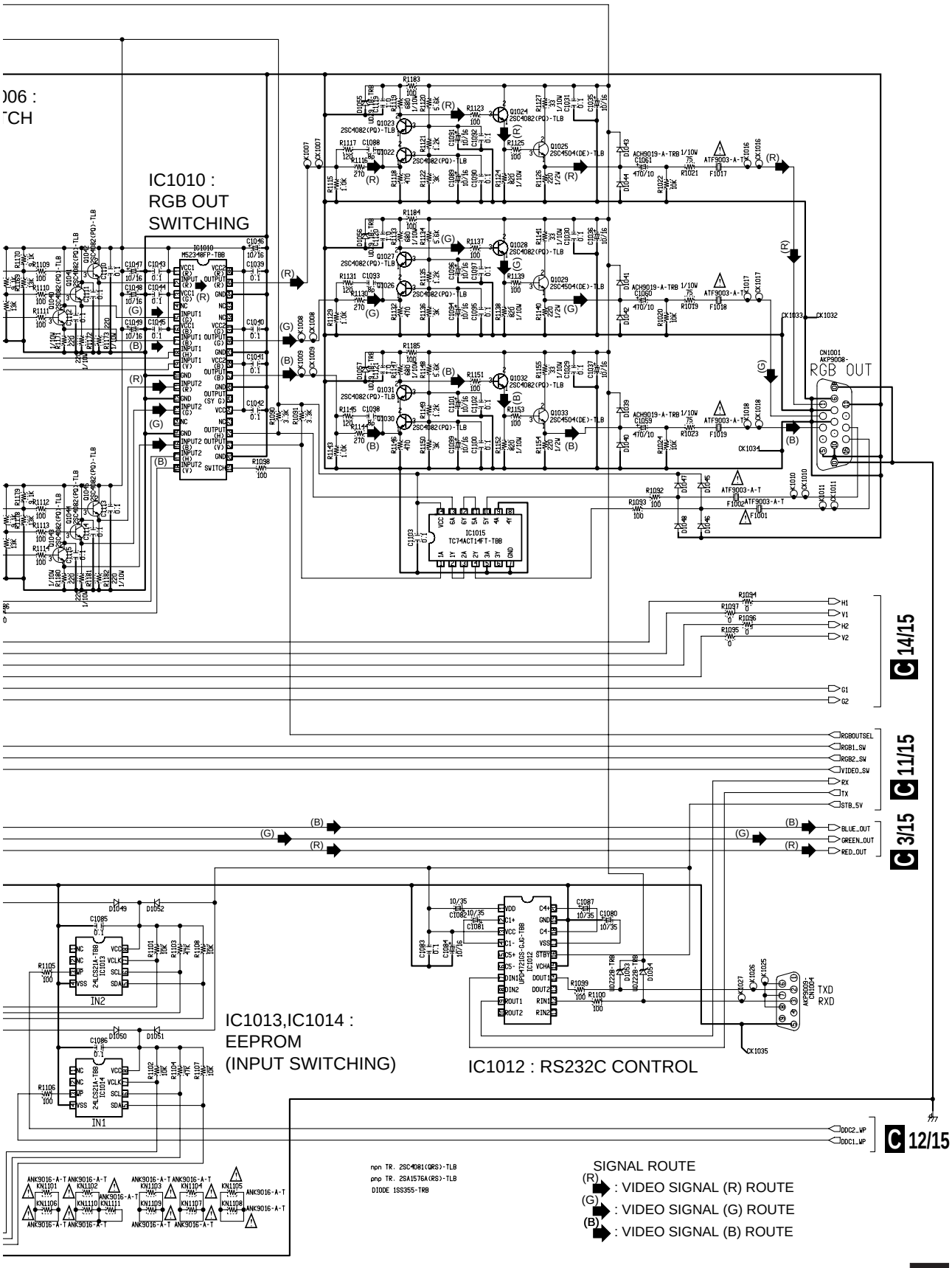
N6004


A6
A_GND
A_13.2V
STB_10V
GND
13.2V
S10B-PH-SM3-TBB
CN1307
A4
MUTE
ASSY
S_SW
DATA
CLK
RESET
PD_V
STB_10V
GND
6V
GND
13.2V
S12B-PH-SM3-TBB
CN1301
A
CN4002
A5
VIDEO_HS
VIDEO_CS
GND
VIDEO_B
GND
VIDEO_G
GND
VIDEO_R
S8B-ZR-SM3A-TFB
CN1302
A
CN4005
LAMP_SW_K
LAMP_SW_A
NONLIGHT_E
NONLIGHT_C
S4B-ZR-SM3A-TFB
CN1303
LAMP BALLAST ASSY
A15
C 11/15,14/15
C 14/15
C 2/15
C 11/15
C 12/15
C 11/15
PD
PD_SW
PD_F_SW
STB_5V
AC_CLK
NON_LIGHT
LAMP_SW
A_MUTE
A_SEL1
A_SEL0
VOLUME
P_MUTE
STB_DOWN
POW_SW
ITT_DATA
ITT_CLK
ITT_RESET
S_VIDEO
ITT_MUTE
V_ASSY_EX
CONT2(1:6)
npn TR. 2SC4081(QRS)-TLB
pnp TR. 2SA1576A(RS)-TLB
DIODE 1SS355-TRB
SIGNAL ROUTE
(R) : VIDEO SIGNAL (R) ROUTE
(G) : VIDEO SIGNAL (G) ROUTE
(B) : VIDEO SIGNAL (B) ROUTE

3.5 MAIN ASSY (2/15)

C 2/15 MAIN ASSY(AWV9024) • I/O BLOCK (2/2)

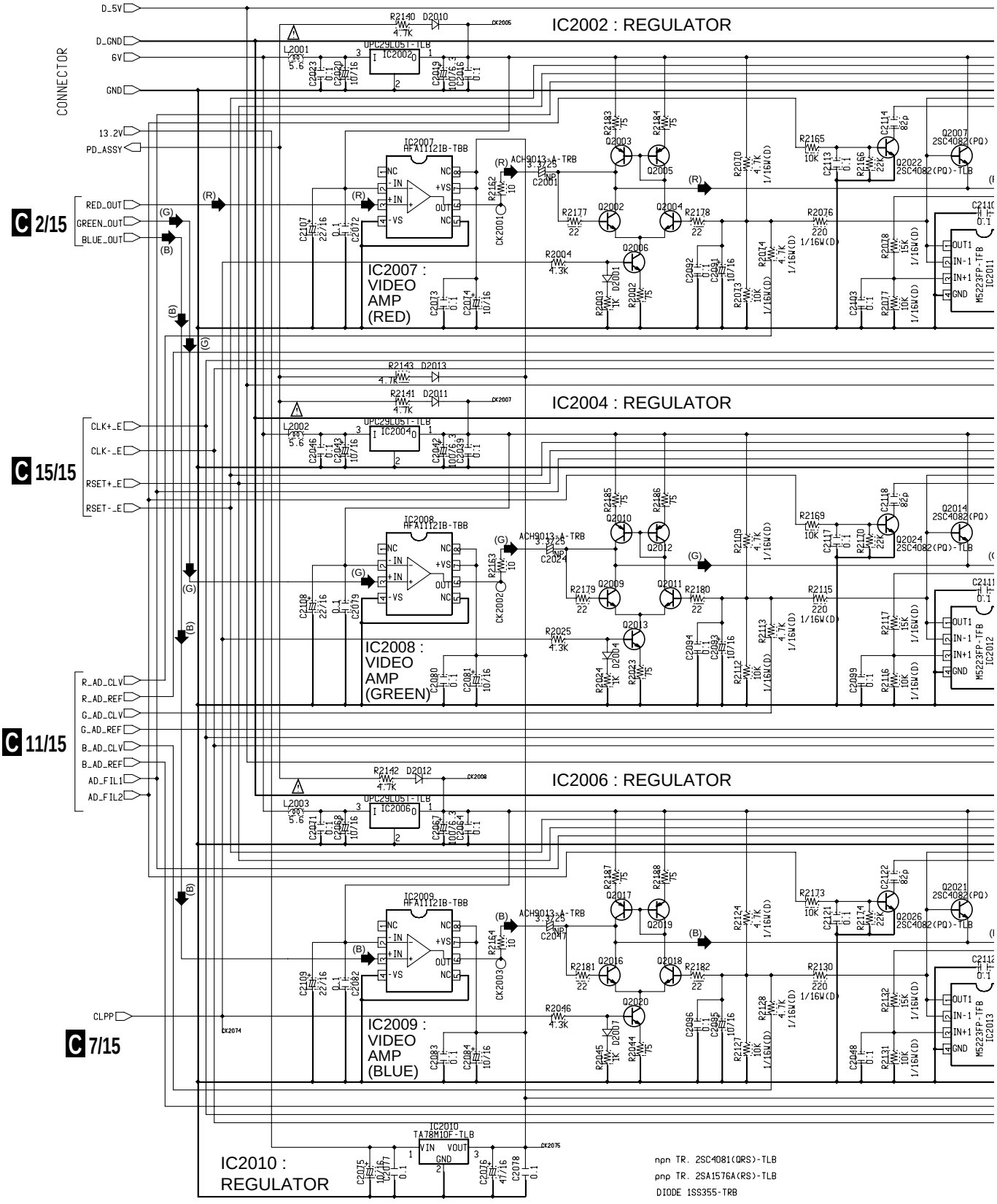


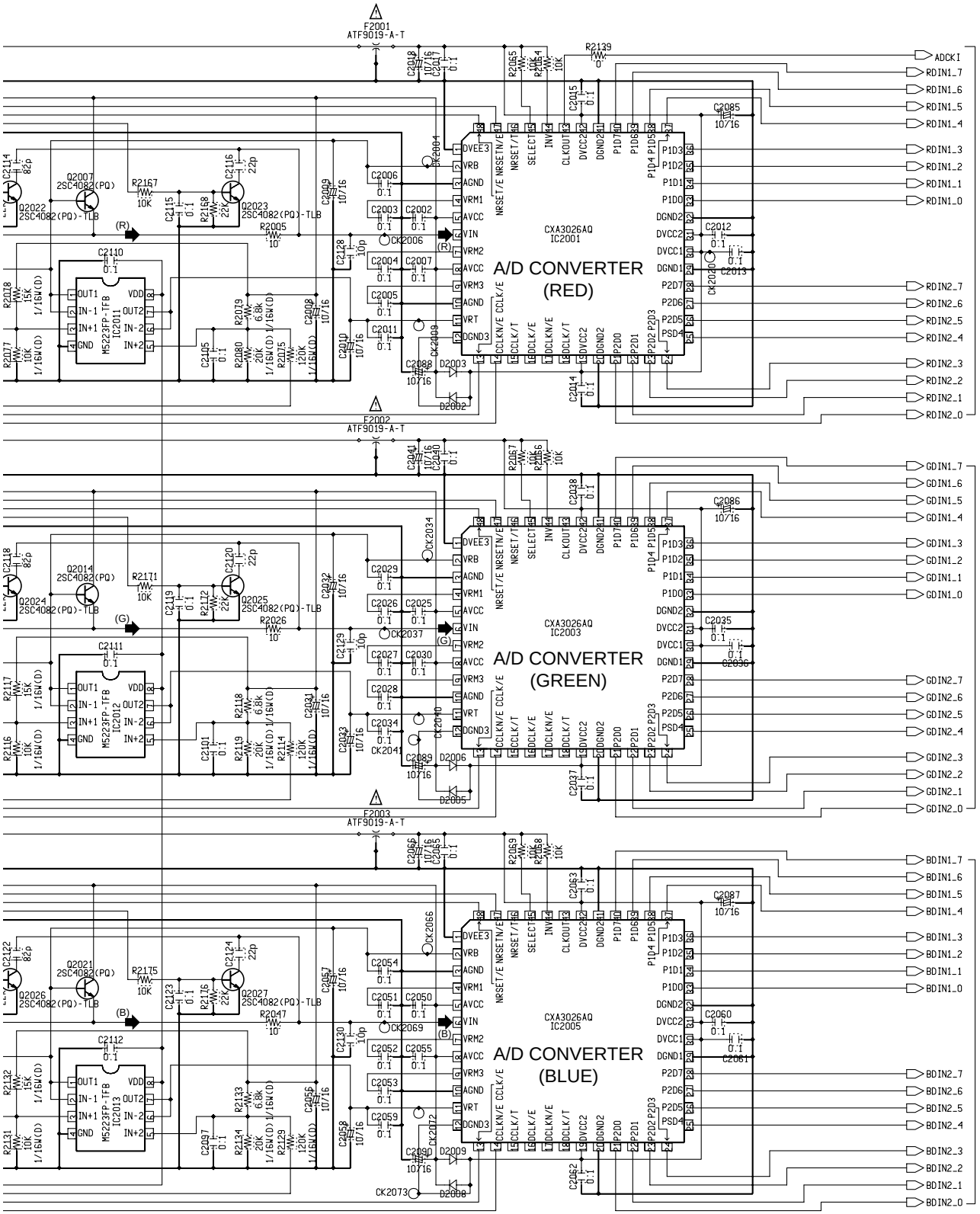

IC1010 :
RGB OUT
SWITCHING
IC1013,IC1014 :
EEPROM
(INPUT SWITCHING)
IC1012 : RS232C CONTROL
C 14/15
C 11/15
C 3/15
C 12/15
RGB OUT
TXD
RXD
SIGNAL ROUTE
(R) : VIDEO SIGNAL (R) ROUTE
(G) : VIDEO SIGNAL (G) ROUTE
(B) : VIDEO SIGNAL (B) ROUTE

3.6 MAIN ASSY (3/15)

C 3/15 MAIN ASSY(AWV9024)

• A/D BLOCK





C 4/15

C 5/15

C 6/15

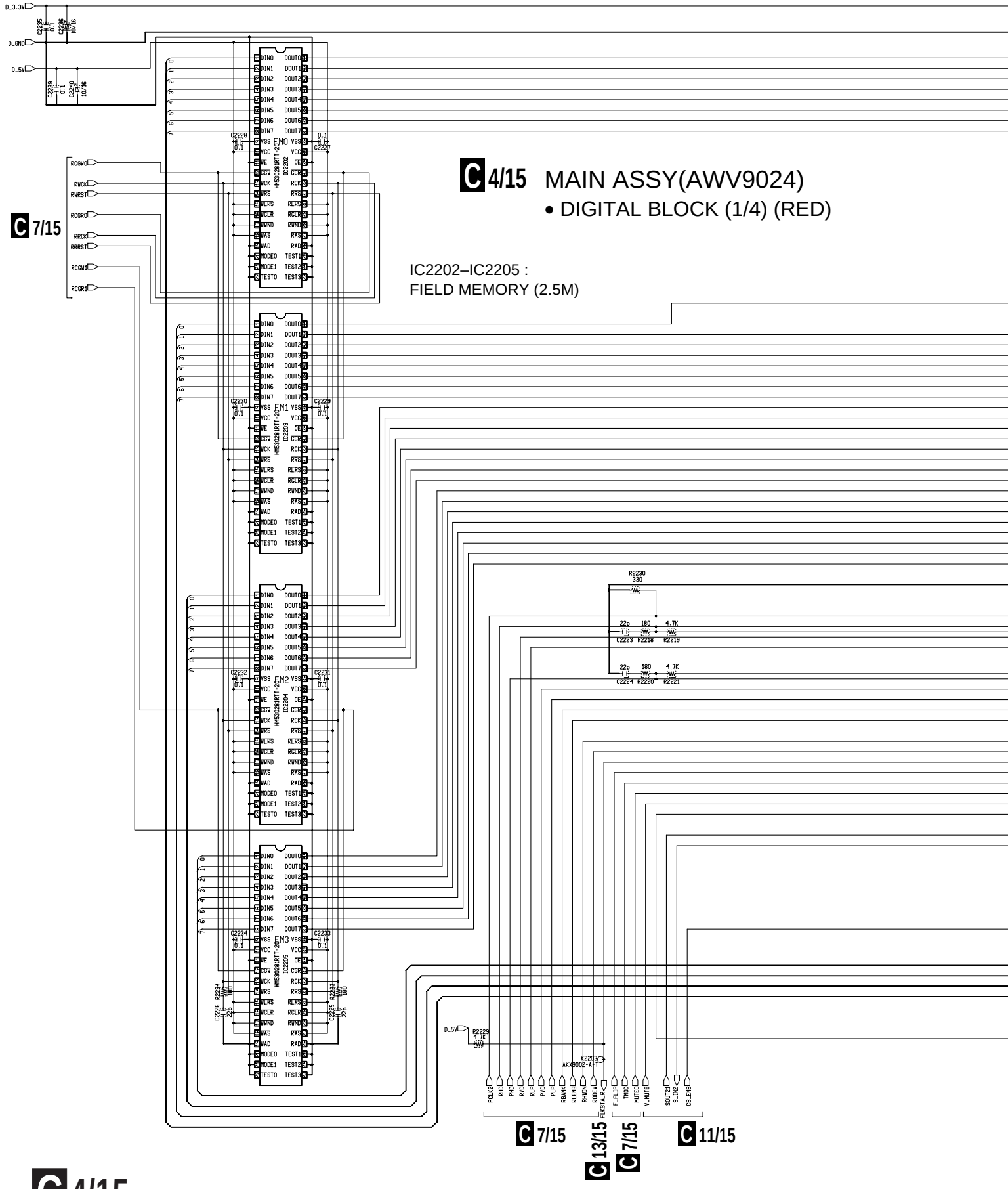
SIGNAL ROUTE

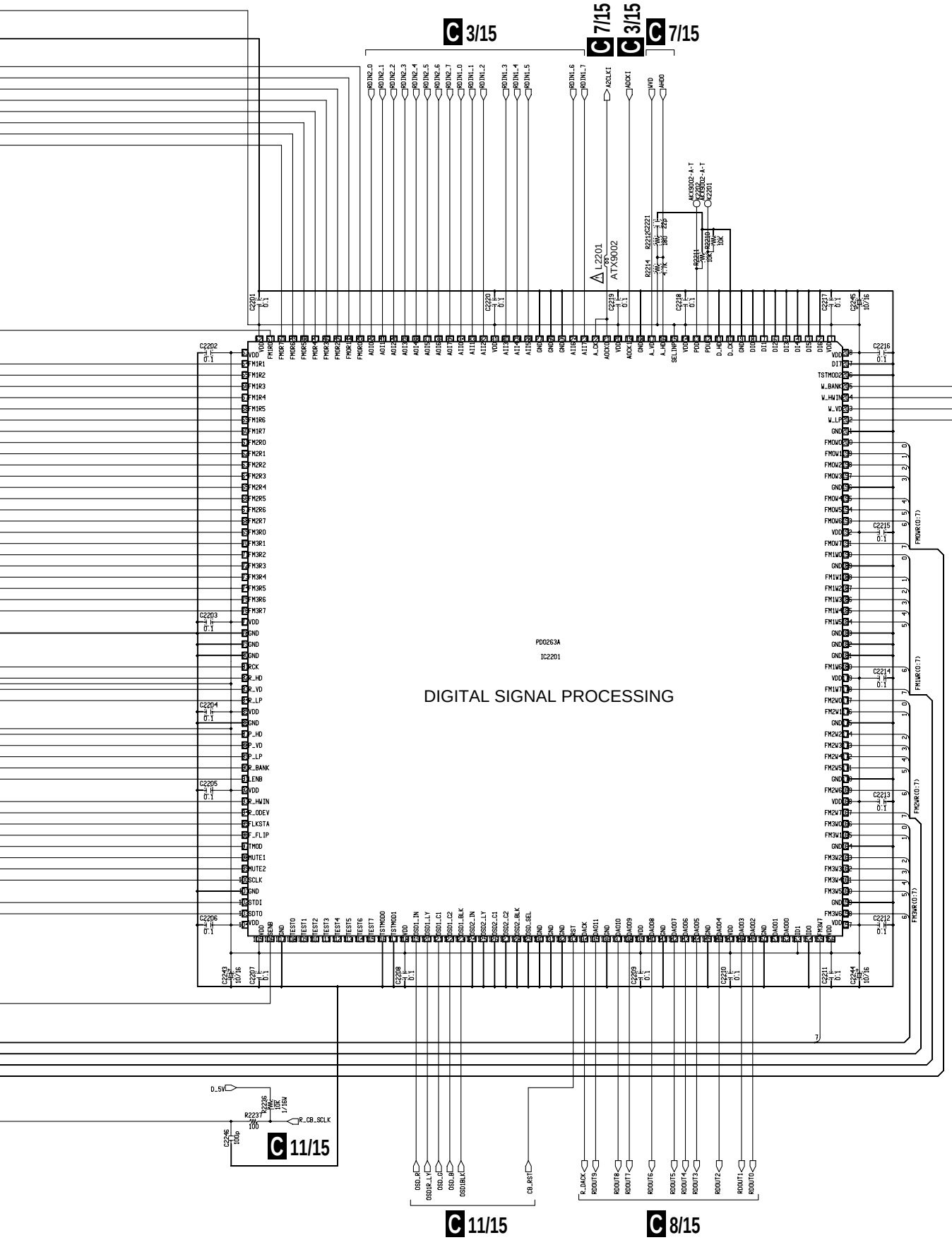
(R) : VIDEO SIGNAL (R) ROUTE

(G) : VIDEO SIGNAL (G) ROUTE

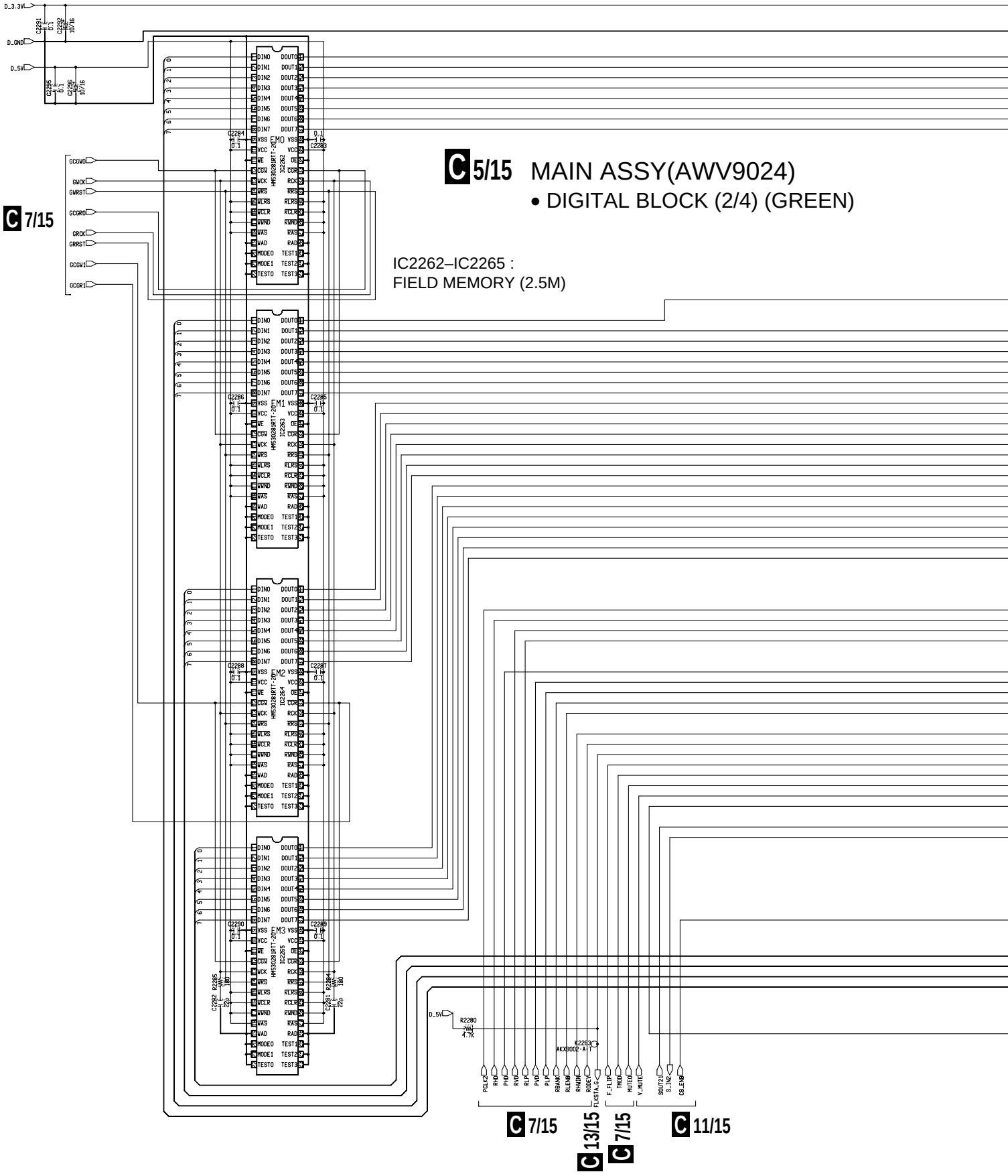
(B) : VIDEO SIGNAL (B) ROUTE

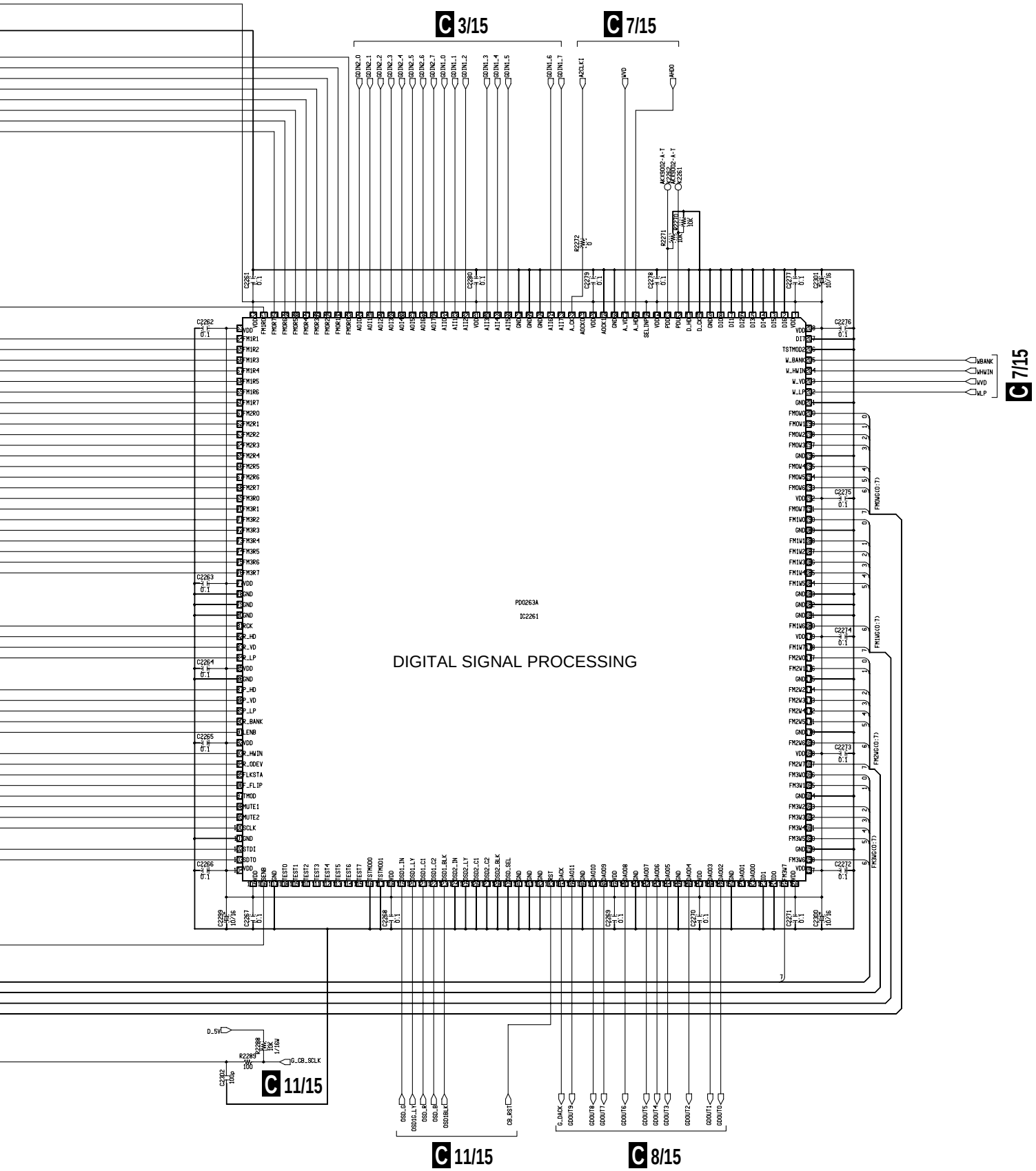
3.7 MAIN ASSY (4/15)



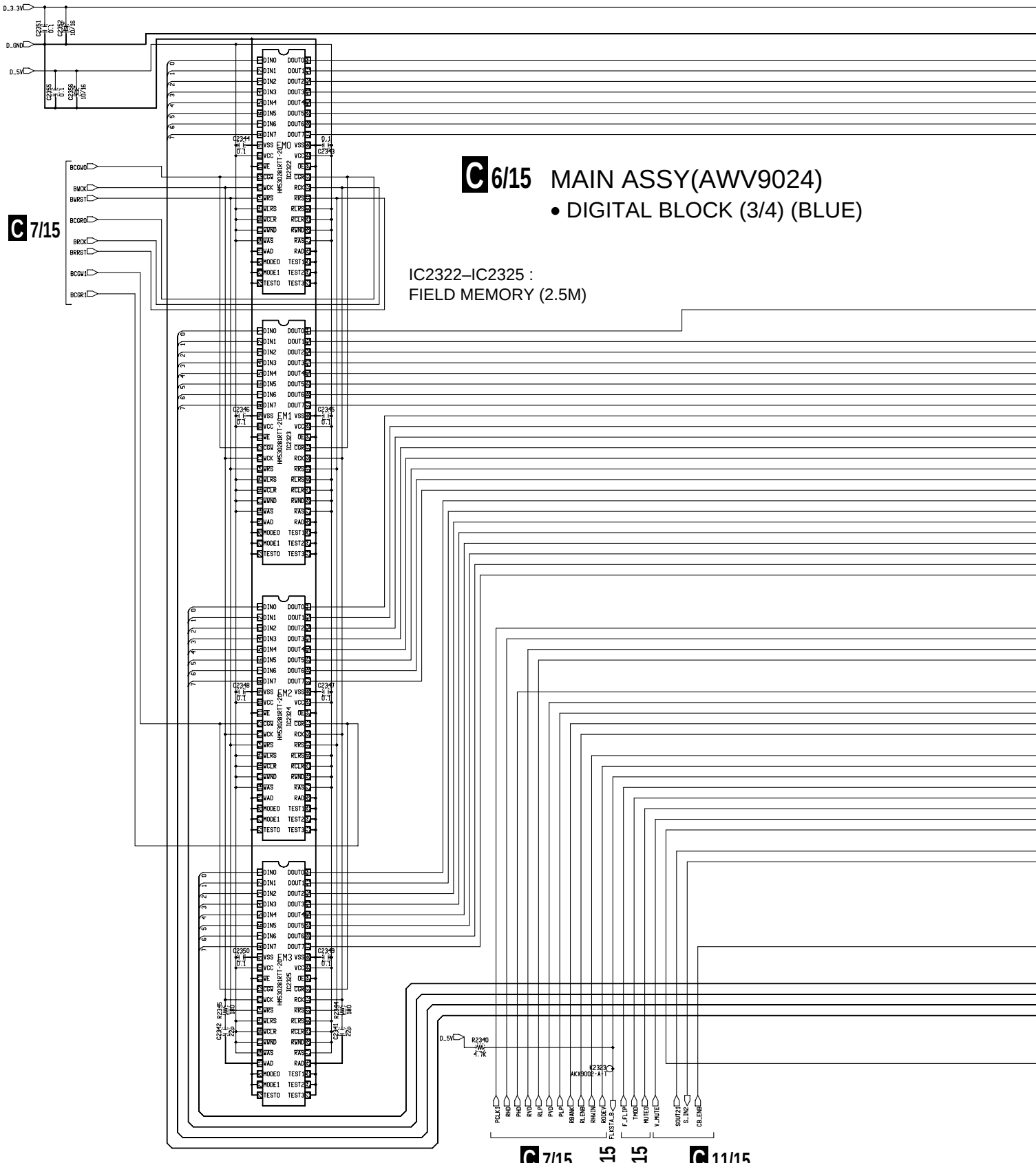

C 3/15
C 7/15
C 3/15
C 7/15
C 7/15
C 11/15
C 11/15
C 8/15
L2201
ATX9002
PDO263A
IC2201
DIGITAL SIGNAL PROCESSING

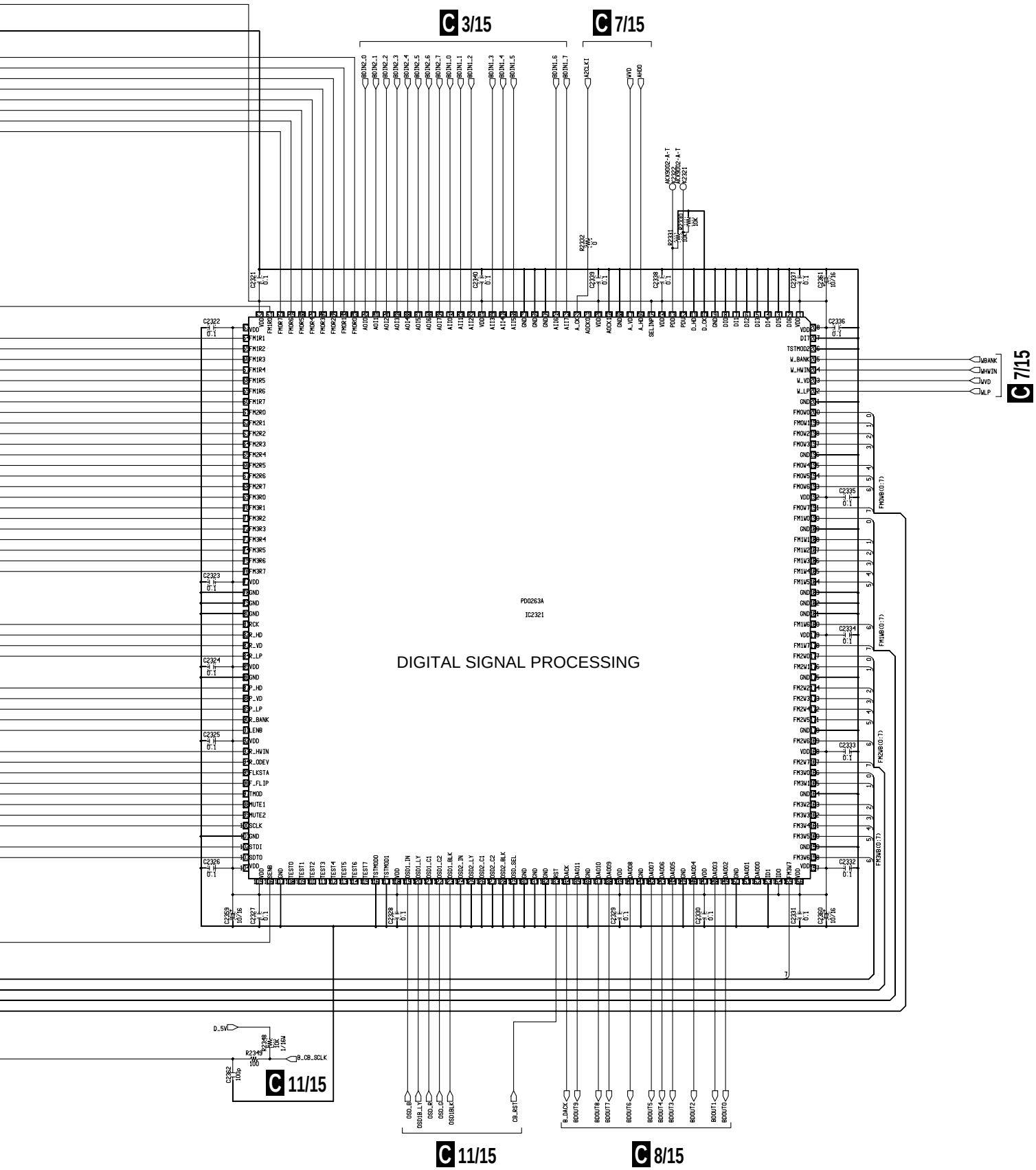
3.8 MAIN ASSY (5/15)



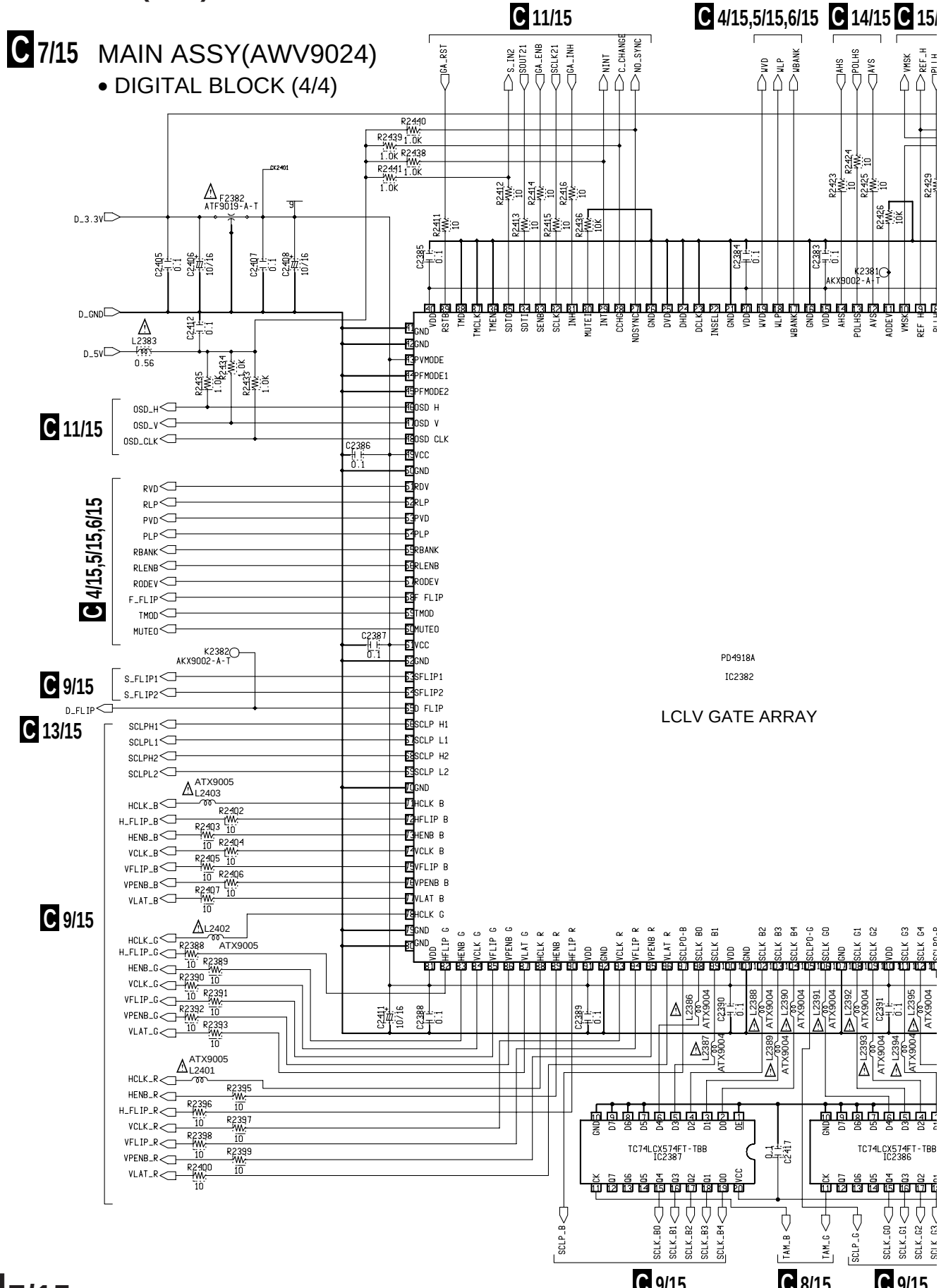

C 3/15
C 7/15
C 7/15
C 11/15
C 11/15
C 8/15
PD0263A
IC2261
DIGITAL SIGNAL PROCESSING

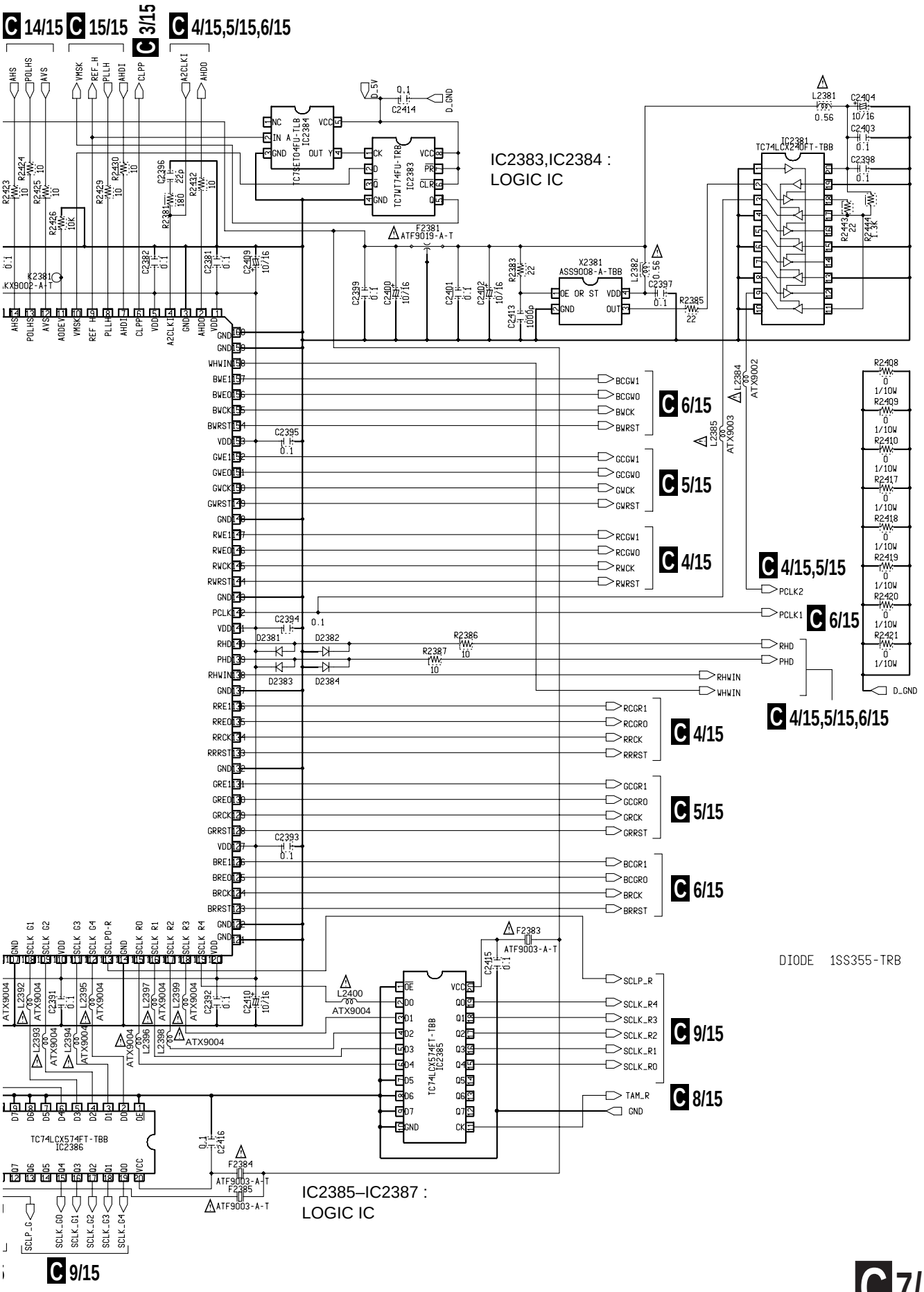
3.9 MAIN ASSY (6/15)



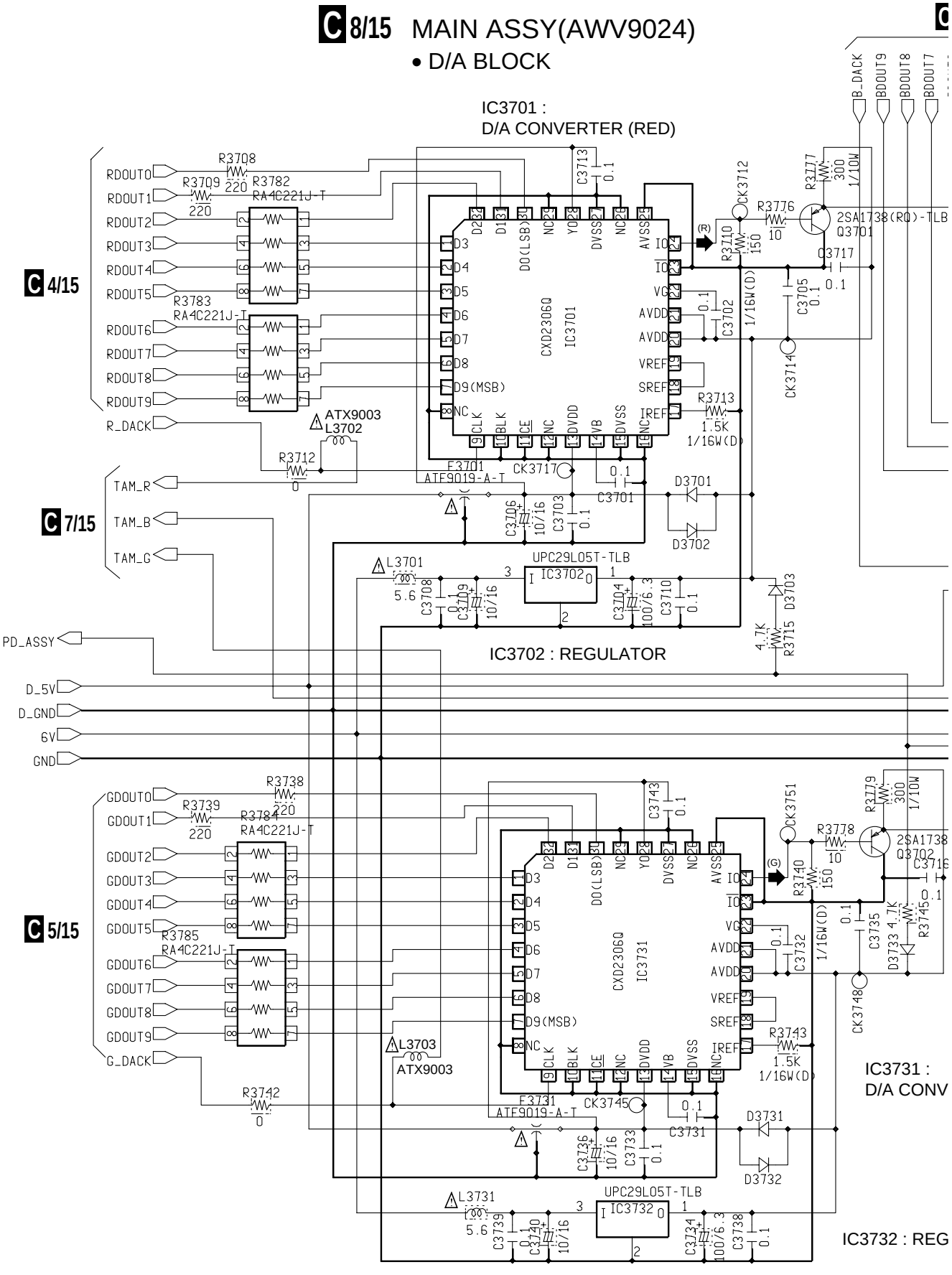

C 3/15
C 7/15
C 7/15
C 11/15
C 11/15
C 8/15
PDO263A
IC2321
DIGITAL SIGNAL PROCESSING

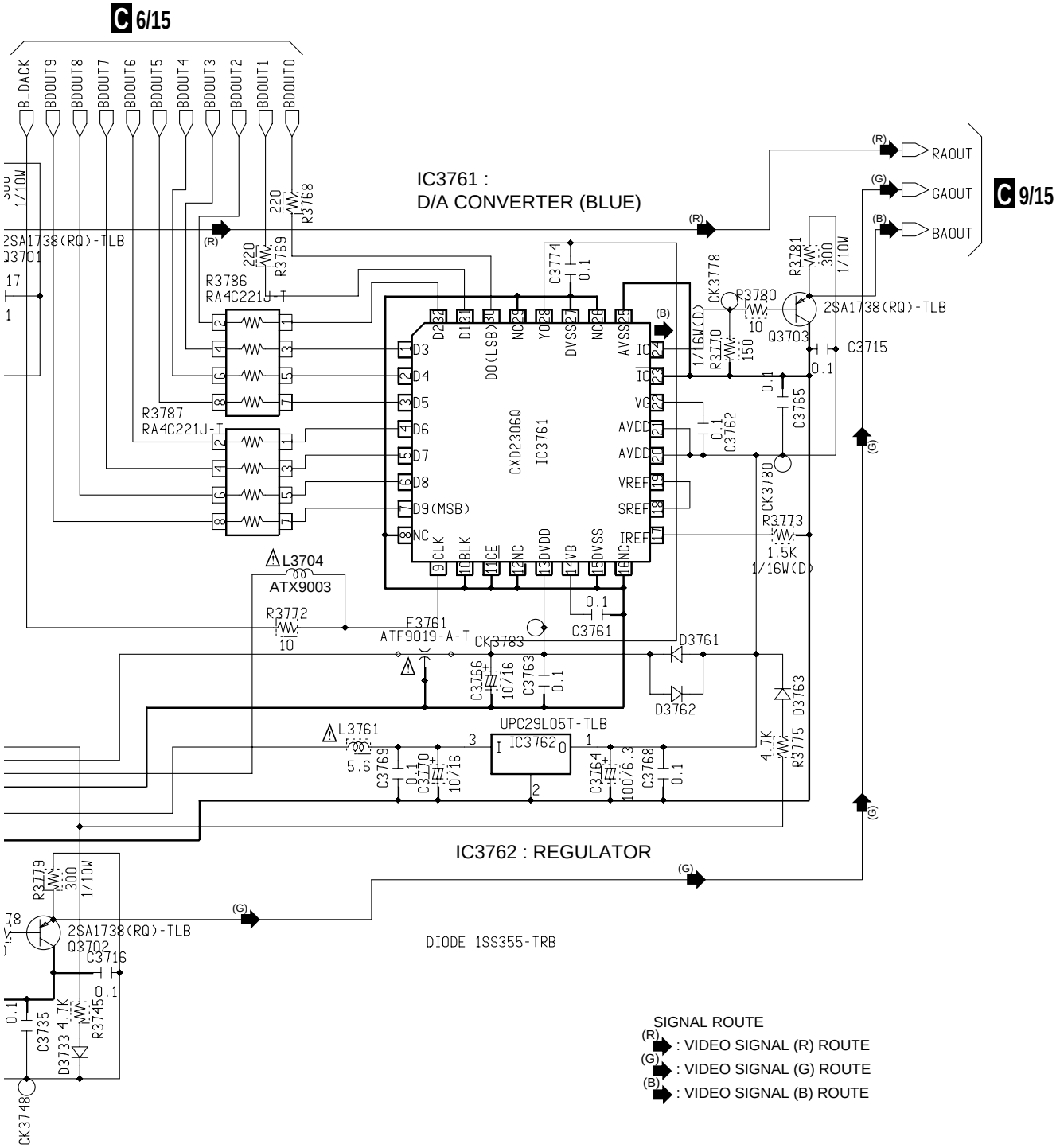
3.10 MAIN ASSY (7/15)




C 14/15
C 15/15
C 3/15
C 4/15,5/15,6/15
IC2383,IC2384 :
LOGIC IC
C 6/15
C 5/15
C 4/15
C 4/15,5/15
C 4/15,5/15,6/15
C 9/15
C 8/15
DIODE 1SS355-TRB
IC2385–IC2387 :
LOGIC IC
C 9/15

3.11 MAIN ASSY (8/15)

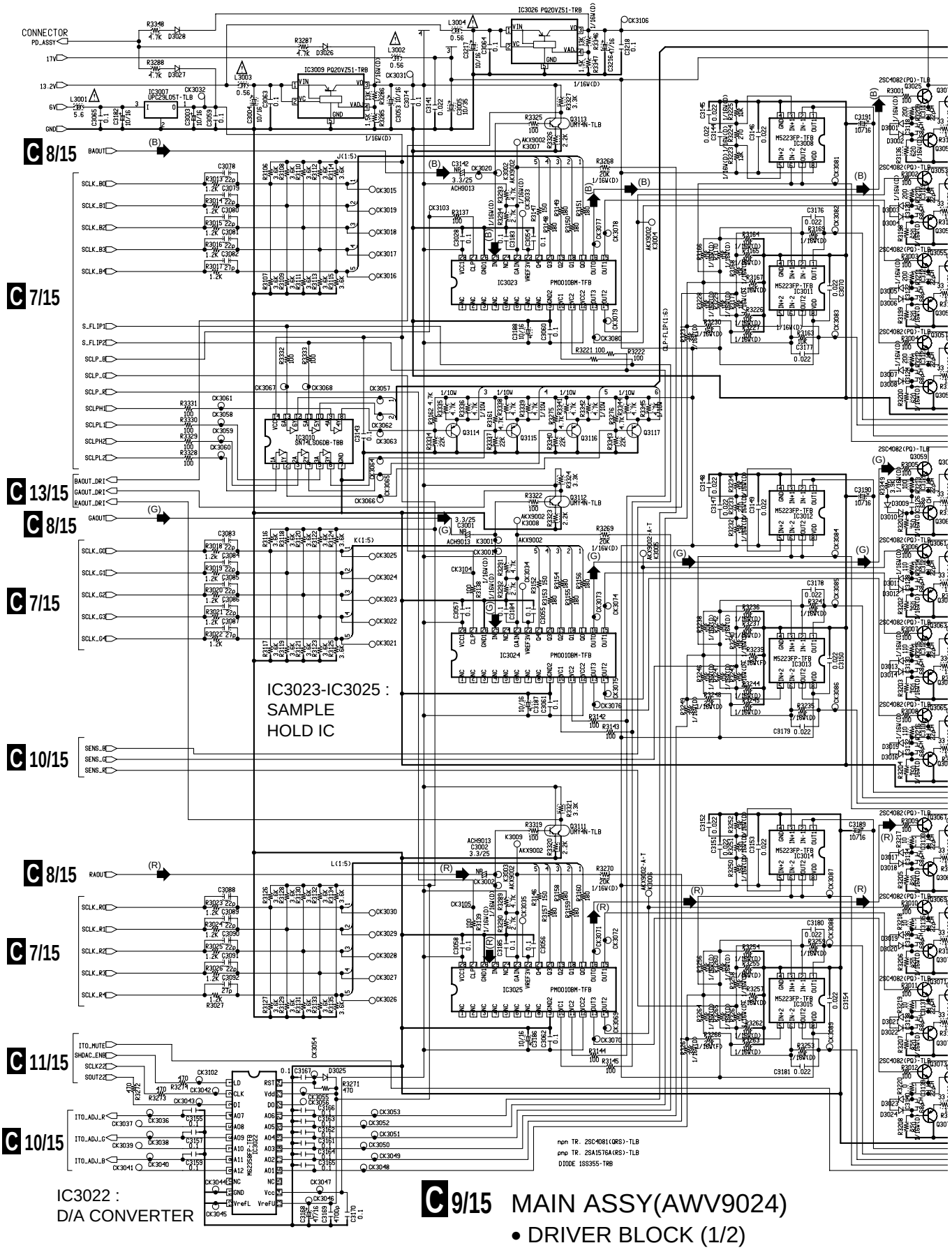




IC3731 :
D/A CONVERTER (GREEN)

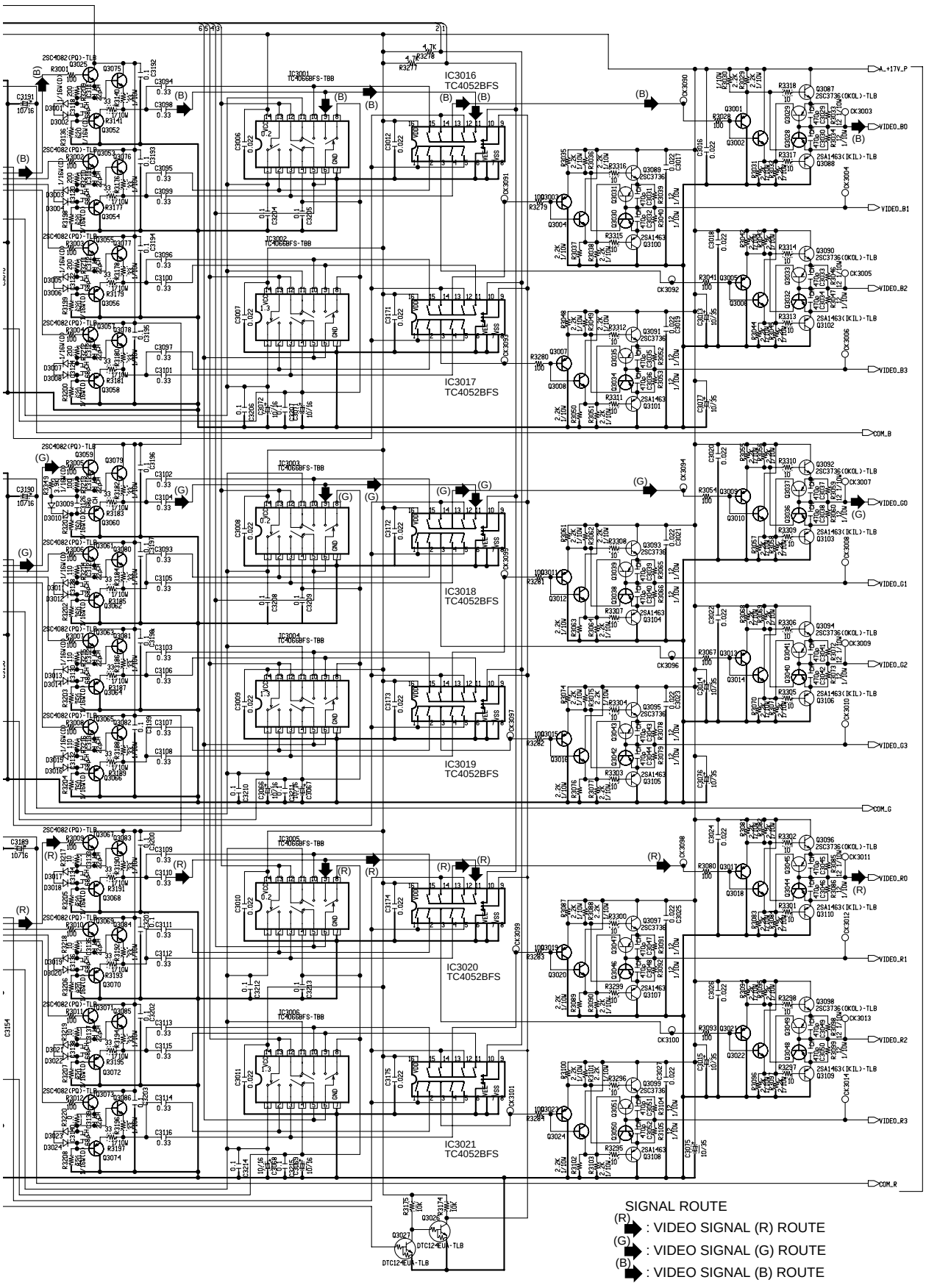
IC3732 : REGULATOR

3.12 MAIN ASSY (9/15)



C 9/15 MAIN ASSY(AWV9024)

- DRIVER BLOCK (1/2)

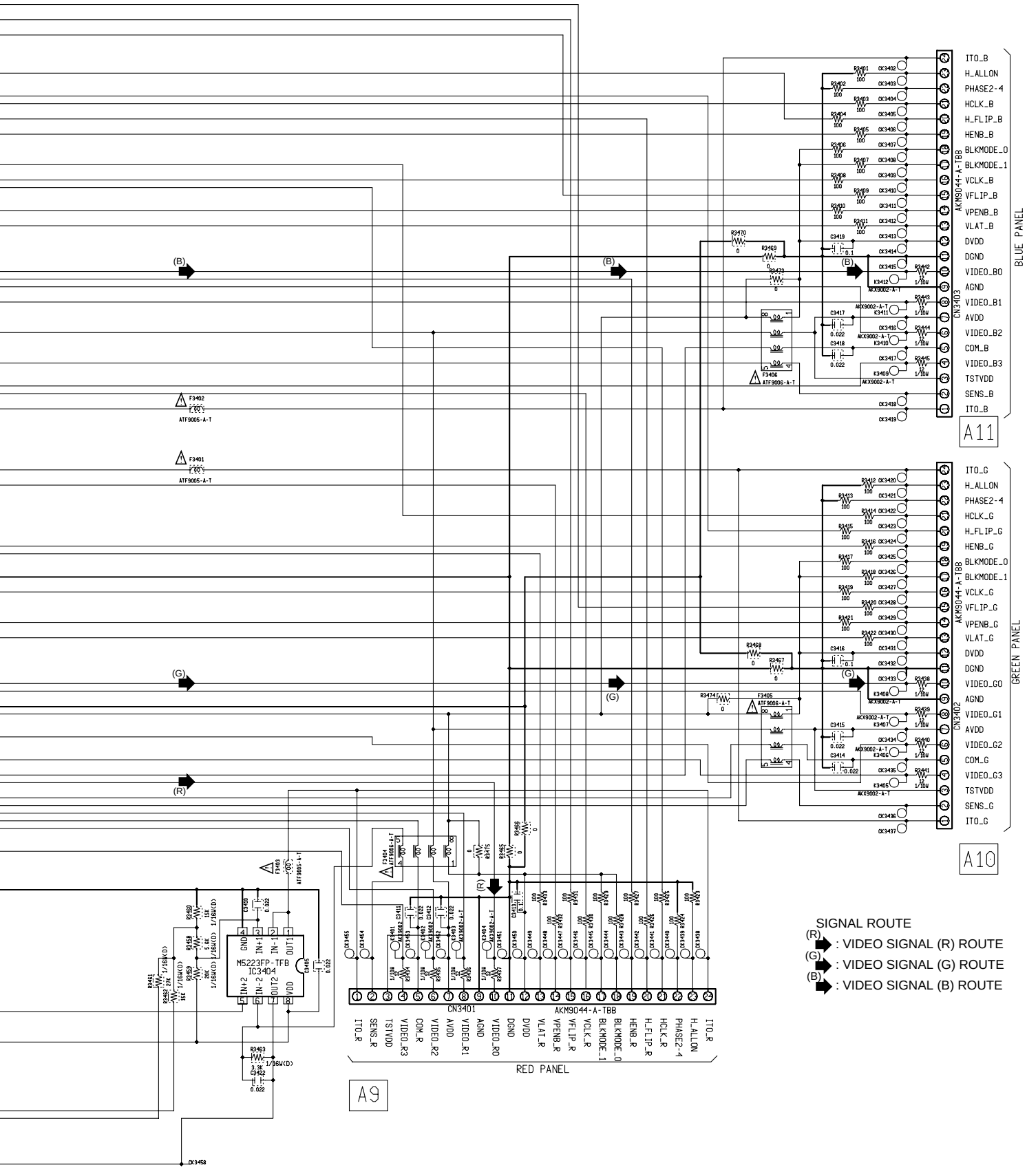

IC3016
TC4052BFS
IC3017
TC4052BFS
IC3018
TC4052BFS
IC3019
TC4052BFS
IC3020
TC4052BFS
IC3021
TC4052BFS
IC3001
TC4066BFS-TBB
IC3002
TC4066BFS-TBB
IC3003
TC4066BFS-TBB
IC3004
TC4066BFS-TBB
IC3005
TC4066BFS-TBB
IC3006
TC4066BFS-TBB
W_+17V_P
VIDEO_B0
VIDEO_B1
VIDEO_B2
VIDEO_B3
VIDEO_G0
VIDEO_G1
VIDEO_G2
VIDEO_G3
VIDEO_R0
VIDEO_R1
VIDEO_R2
VIDEO_R3
COM_B
COM_G
COM_R
SIGNAL ROUTE
(R) : VIDEO SIGNAL (R) ROUTE
(G) : VIDEO SIGNAL (G) ROUTE
(B) : VIDEO SIGNAL (B) ROUTE

C 10/15

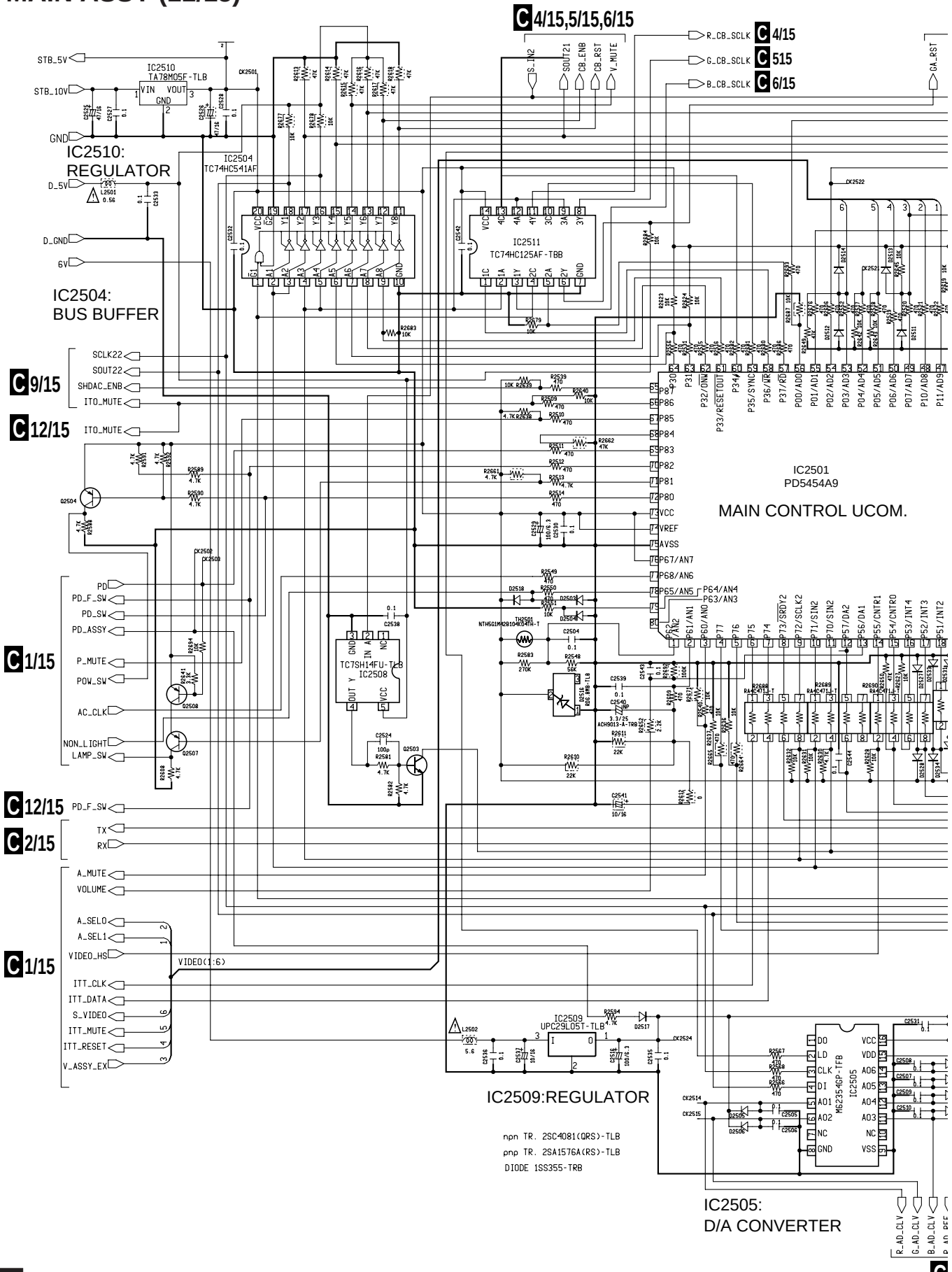
3.13 MAIN ASSY (10/15)

C 10/15 MAIN ASSY (AWV9024)

•DRIVER BLOCK (2/2)


BLUE PANEL
CN3403
AKM9044-A-TBB
ITO_B
H_ALLON
PHASE2-4
HCLK_B
H_FLIP_B
HENB_B
BLKMODE_0
BLKMODE_1
VCLK_B
VFLIP_B
VPENB_B
VLAT_B
DVDD
DGND
VIDEO_B0
AGND
VIDEO_B1
AVDD
VIDEO_B2
COM_B
VIDEO_B3
TSTVDD
SENS_B
ITO_B
A11
GREEN PANEL
CN3402
ITO_G
H_ALLON
PHASE2-4
HCLK_G
H_FLIP_G
HENB_G
BLKMODE_0
BLKMODE_1
VCLK_G
VFLIP_G
VPENB_G
VLAT_G
DVDD
DGND
VIDEO_G0
AGND
VIDEO_G1
AVDD
VIDEO_G2
COM_G
VIDEO_G3
TSTVDD
SENS_G
ITO_G
A10
RED PANEL
CN3401
AKM9044-A-TBB
ITO_R
SENS_R
TSTVDD
VIDEO_R3
COM_R
VIDEO_R2
AVDD
VIDEO_R1
AGND
VIDEO_R0
DGND
DVDD
VLAT_R
VPENB_R
VFLIP_R
VCLK_R
BLKMODE_1
BLKMODE_0
HENB_R
H_FLIP_R
HCLK_R
PHASE2-4
H_ALLON
ITO_R
A9
IC3404
M5223FP-TFB
SIGNAL ROUTE
(R) : VIDEO SIGNAL (R) ROUTE
(G) : VIDEO SIGNAL (G) ROUTE
(B) : VIDEO SIGNAL (B) ROUTE

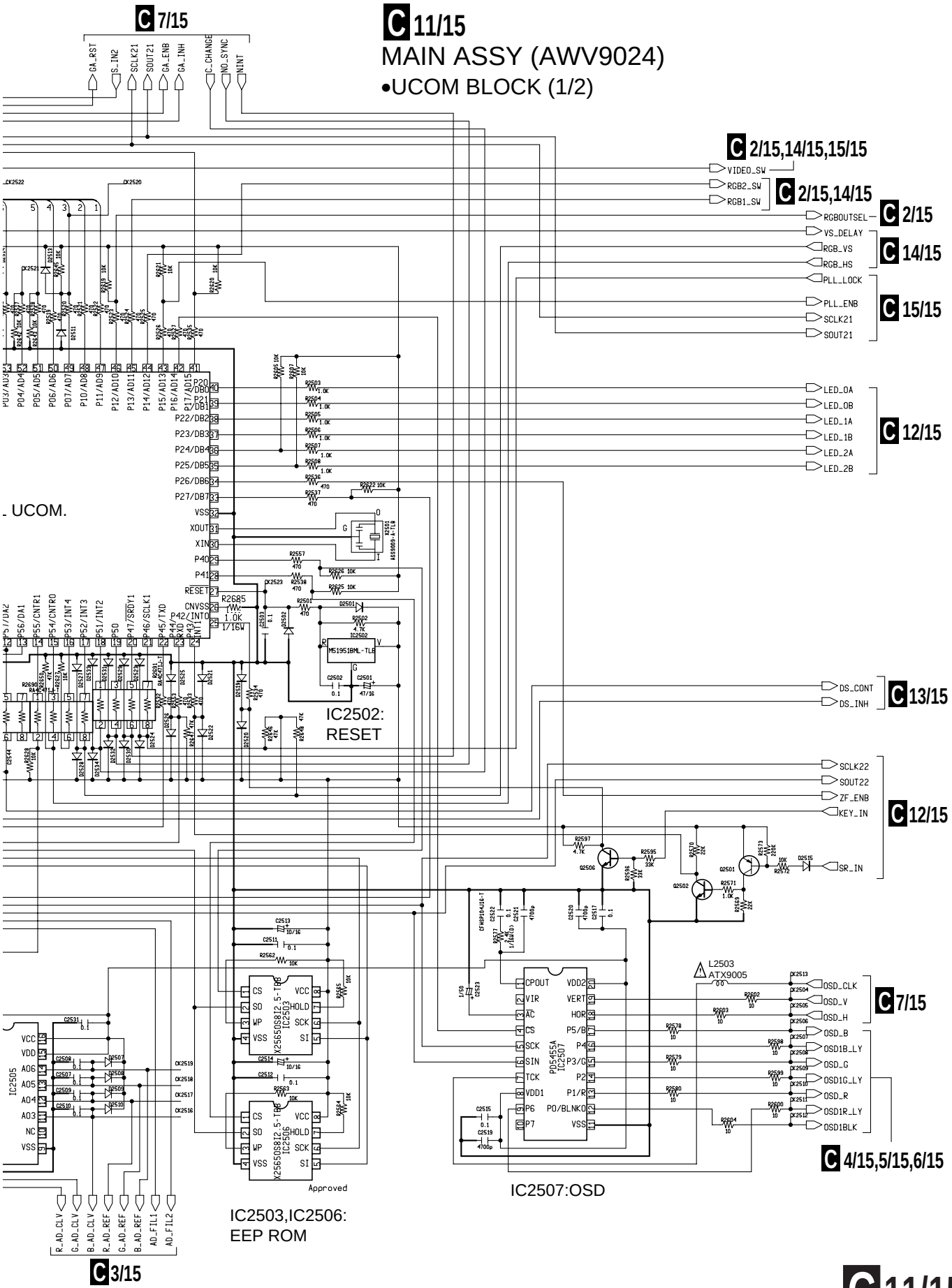
3.14 MAIN ASSY (11/15)



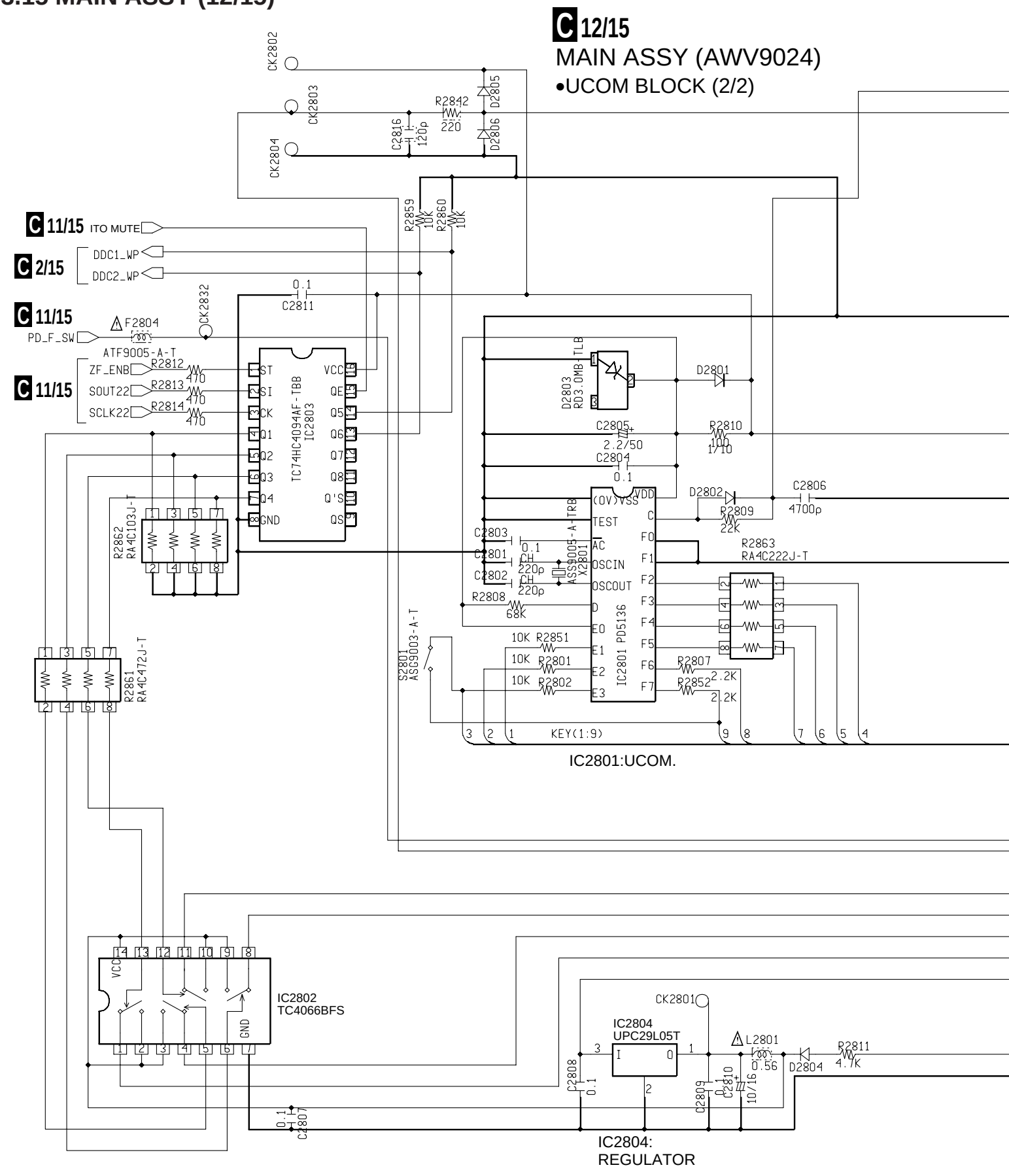
C 11/15

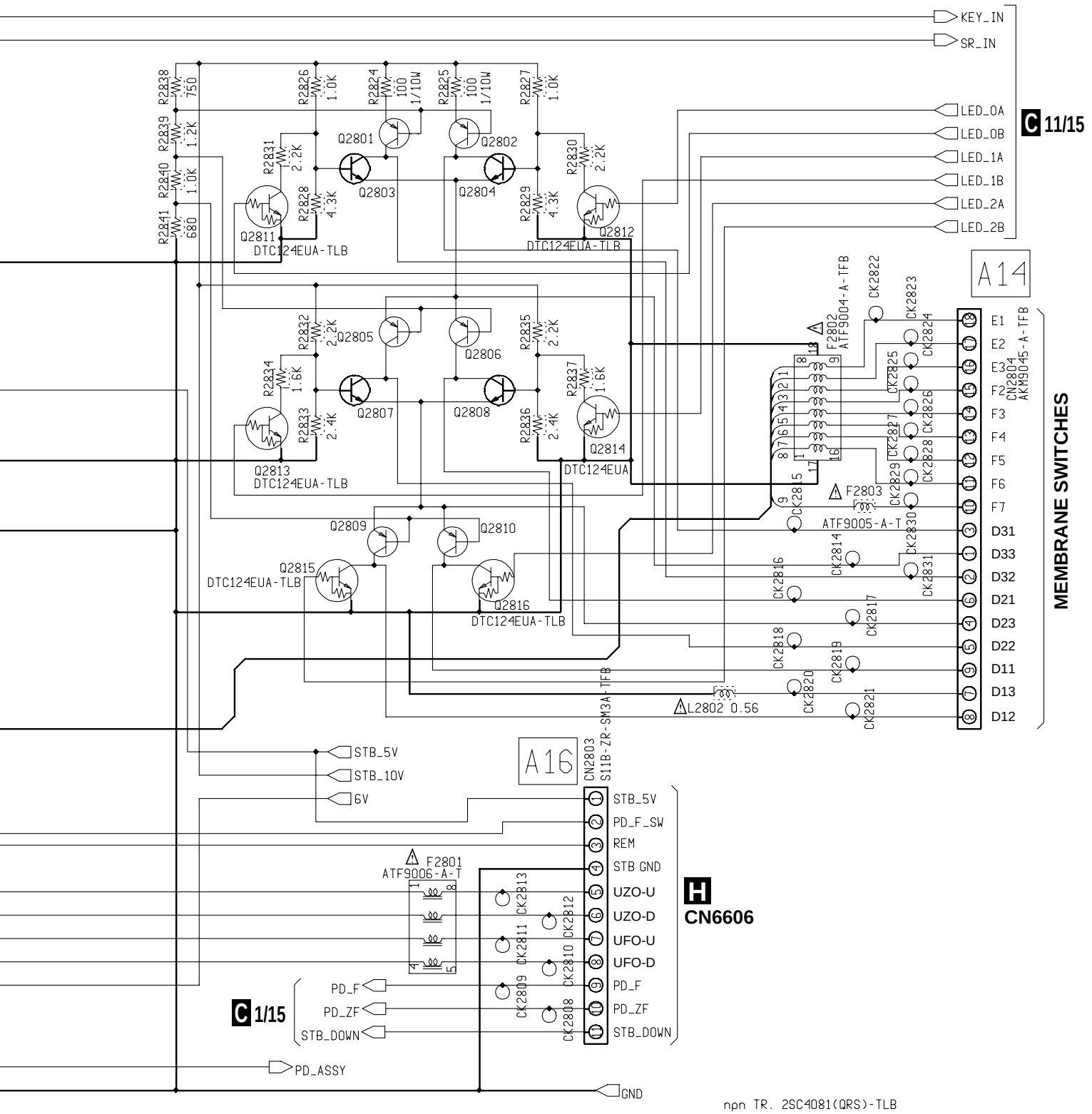
MAIN ASSY (AWV9024)

•UCOM BLOCK (1/2)



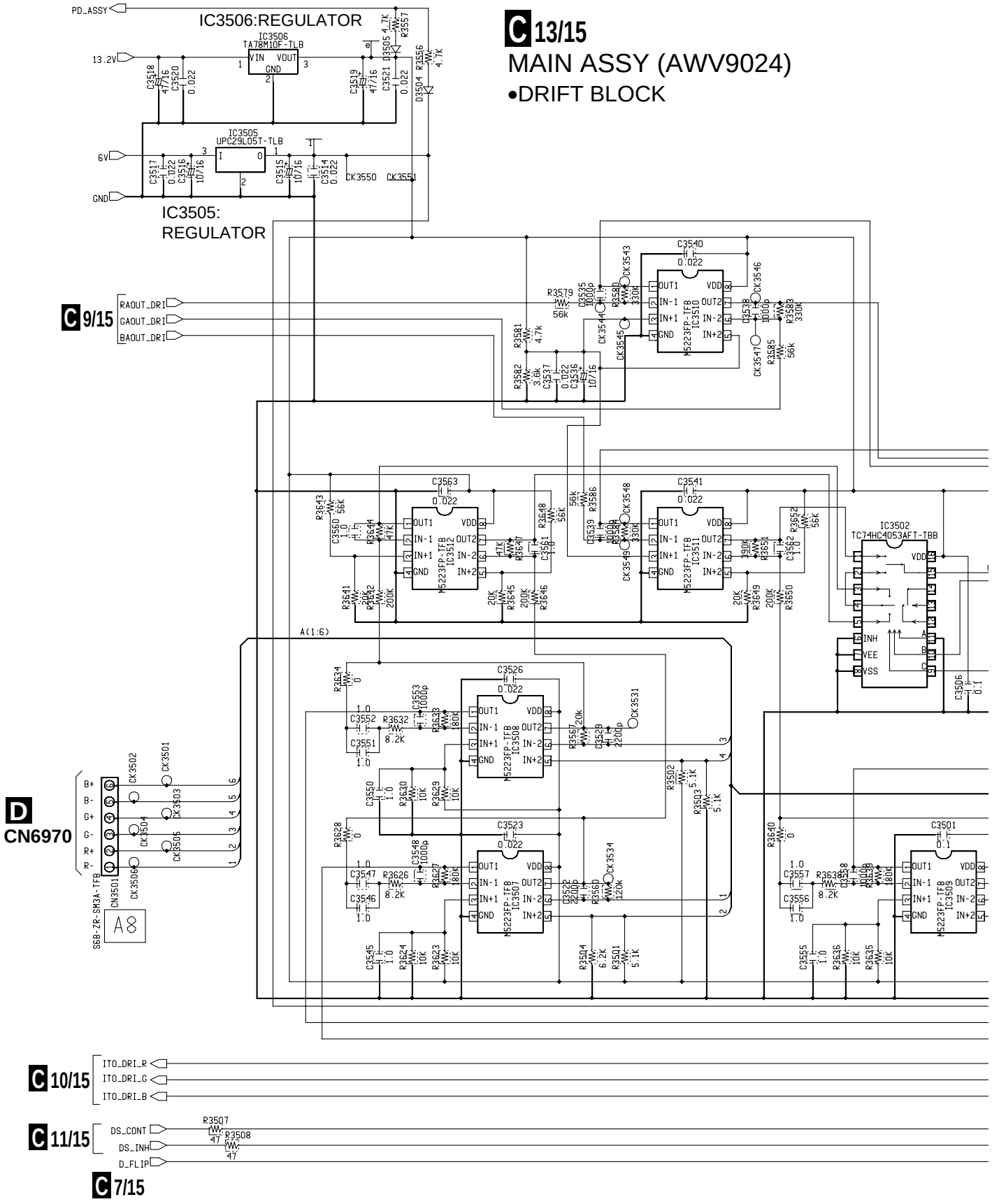
3.15 MAIN ASSY (12/15)

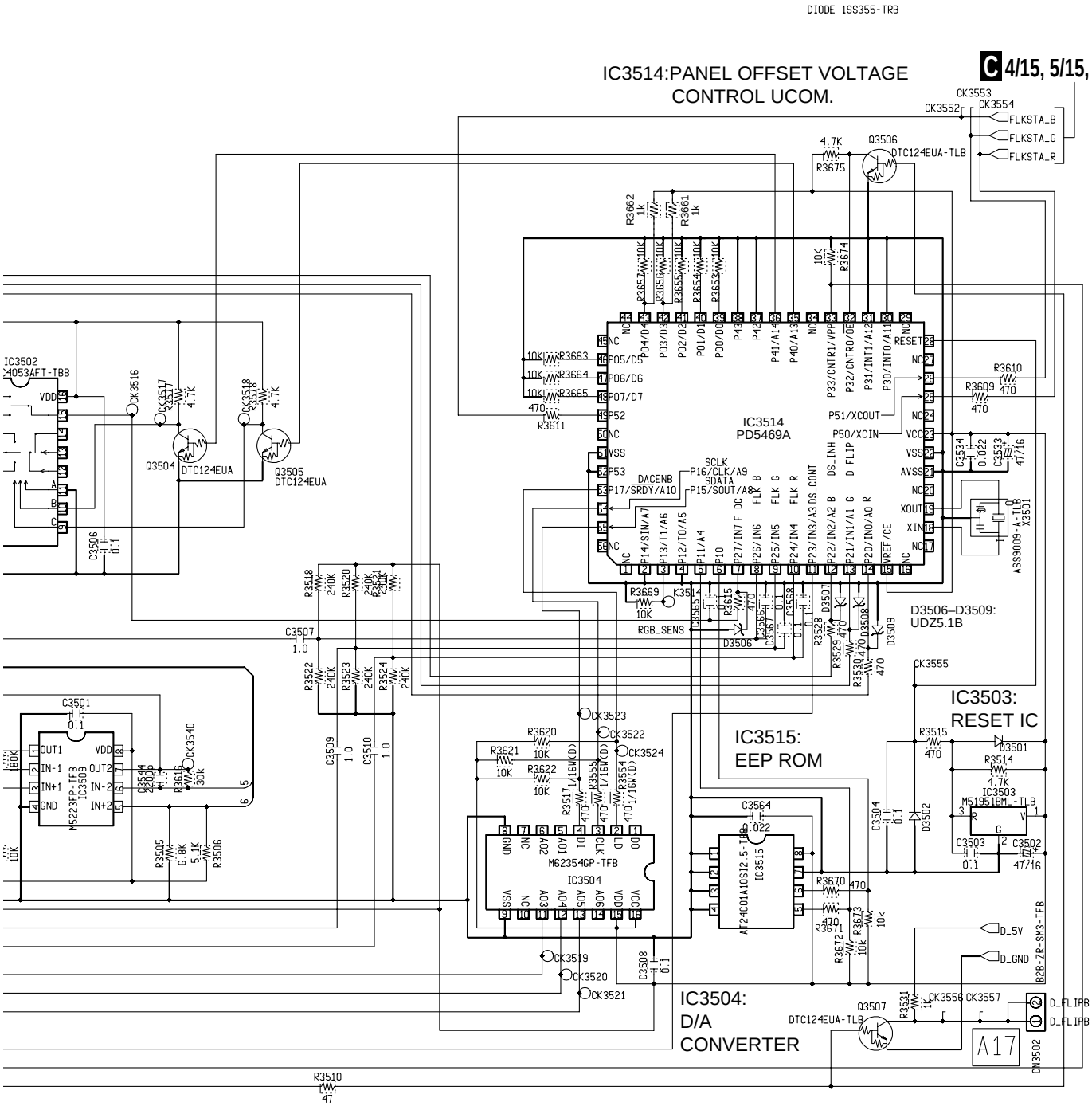




npn TR. 2SC4081(QRS)-TLB
pnp TR. 2SA1576A(RS)-TLB
DIODE 1SS355-TRB

3.16 MAIN ASSY (13/15)



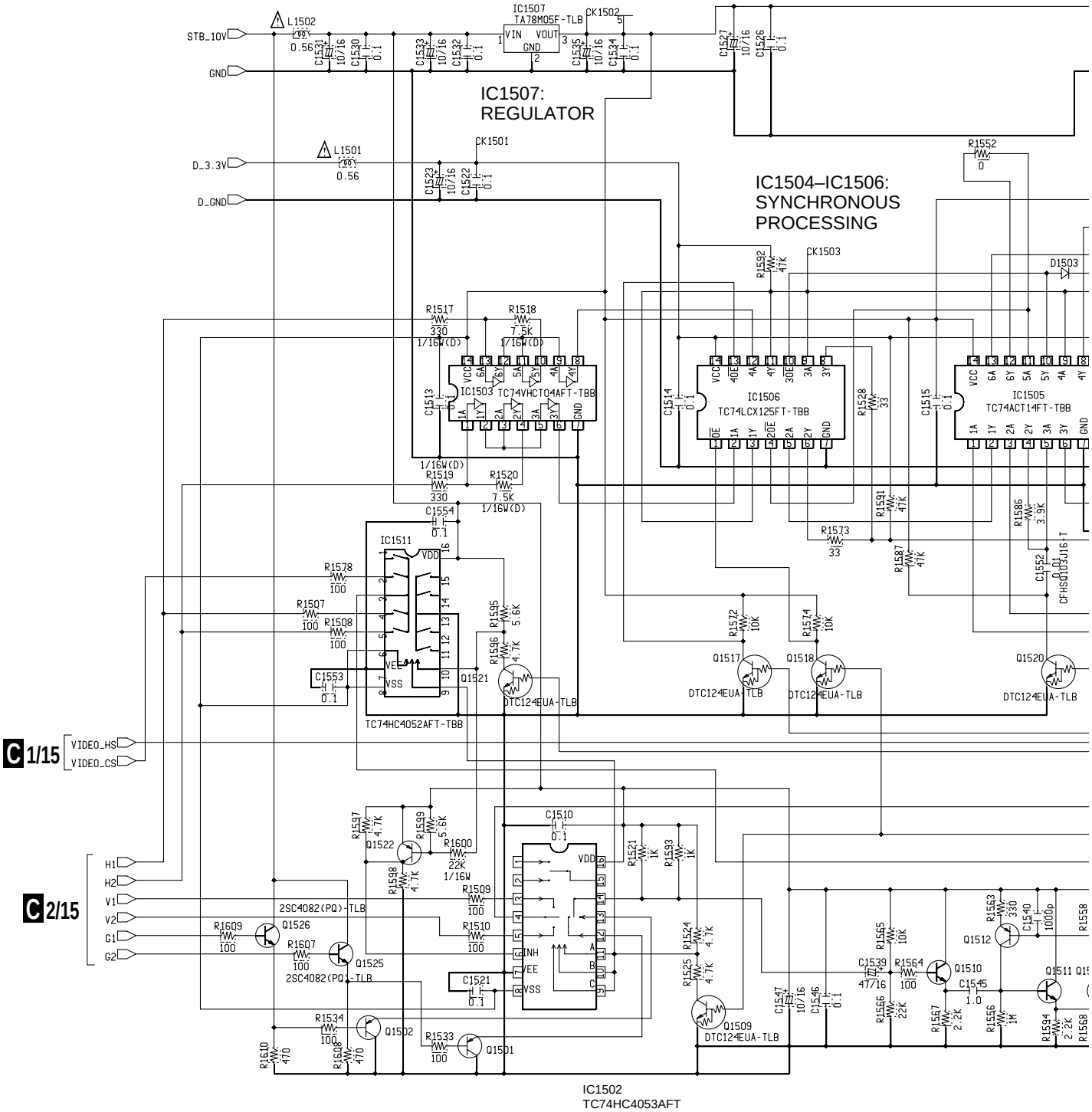

C 4/15, 5/15, 6/15
IC3514:PANEL OFFSET VOLTAGE CONTROL UCOM.
DIODE 1SS355-TRB
IC3514 PD5469A
IC3515: EEP ROM
IC3503: RESET IC
IC3504: D/A CONVERTER
D3506–D3509: UDZ5.1B
IC3502 24053AFT-TBB
Q3504 DTC124EUA
Q3505 DTC124EUA
Q3506 DTC124EUA-TLB
Q3507 DTC124EUA-TLB
IC3501 M5223FP-TFB
M62354GP-TFB
M51951BML-TLB
AT24C01A10SI2.5-TLB
FLKSTA_B
FLKSTA_G
FLKSTA_R
RGB_SENS
D_5V
D_GND
D_FLIPB
D_FLIPB
A17

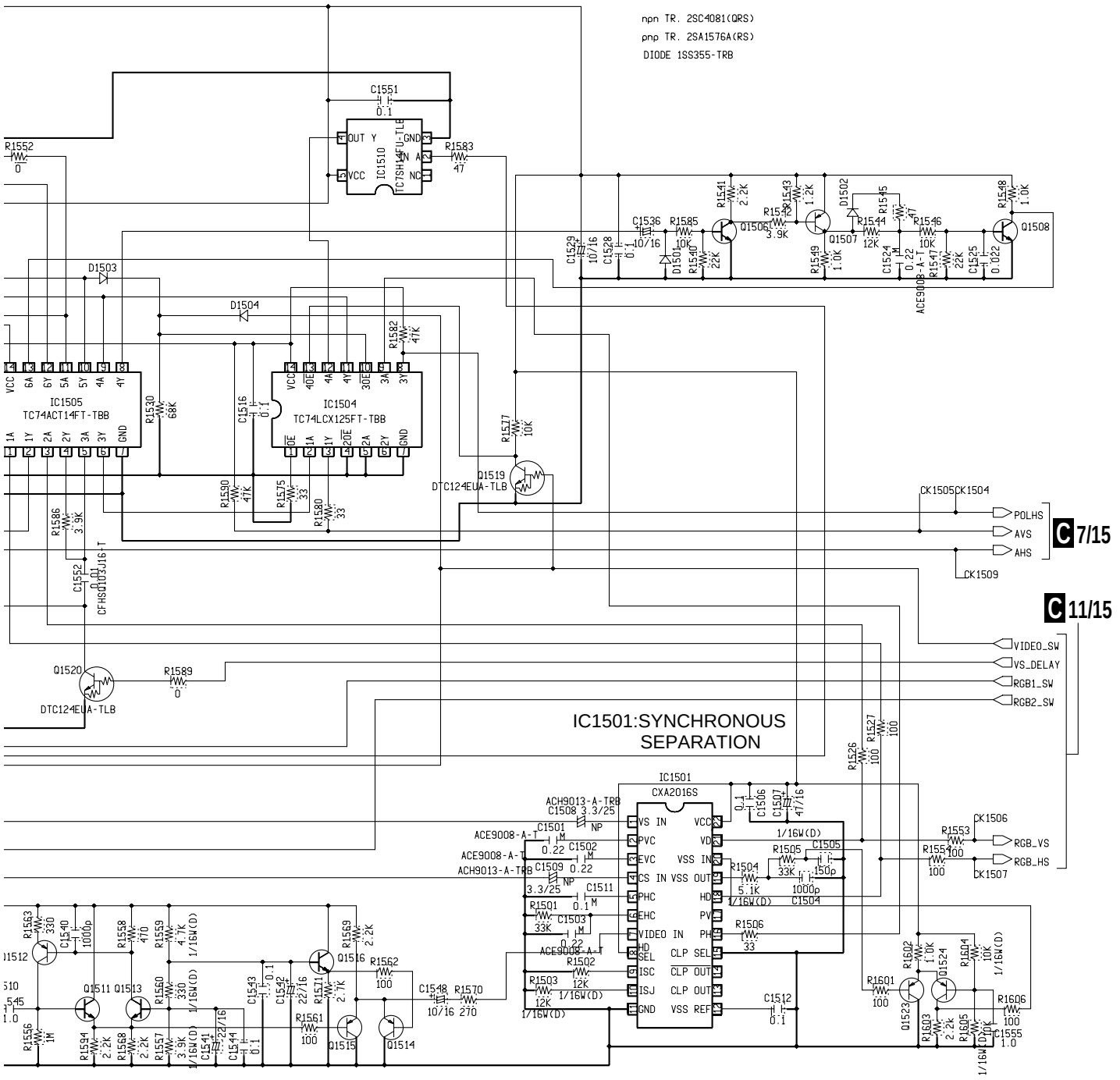
3.17 MAIN ASSY (14/15)

C 14/15

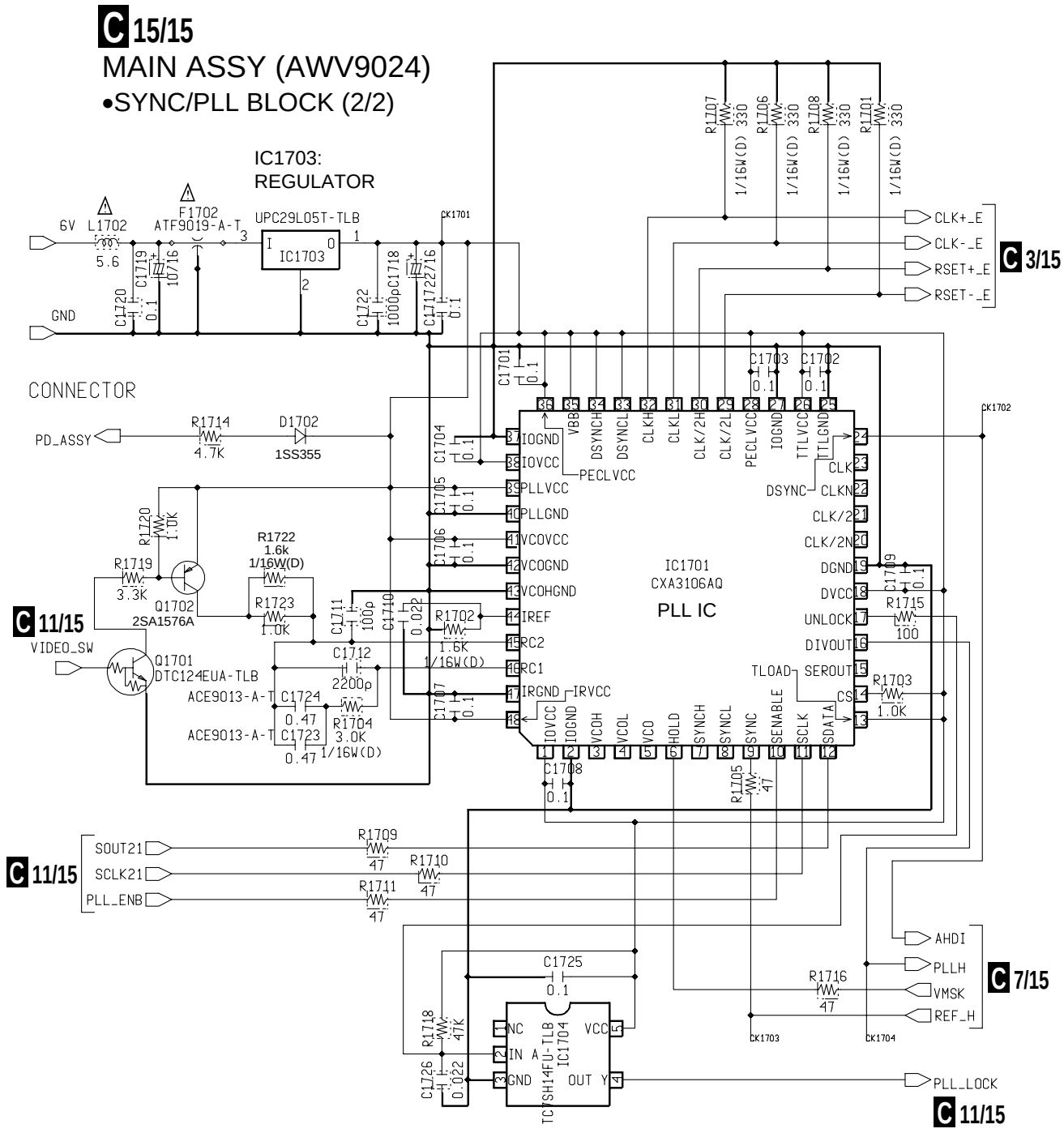
MAIN ASSY (AWV9024)

•SYNC/PLL BLOCK (1/2)



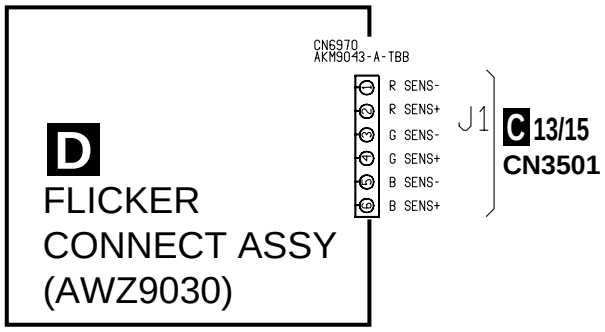

npn TR. 2SC4081(QRS)
pnp TR. 2SA1576A(RS)
DIODE 1SS355-TRB
IC1501:SYNCHRONOUS SEPARATION
IC1501
CXA2016S
IC1505
TC74ACT14FT-TBB
IC1504
TC74LCX125FT-TBB
IC1510
TC7SH14FU-TLB
C7/15
C11/15
C14/15
POLHS
AVS
AHS
CK1509
CK1505CK1504
VIDEO_SW
VS_DELAY
RGB1_SW
RGB2_SW
RGB_VS
RGB_HS
CK1506
CK1507

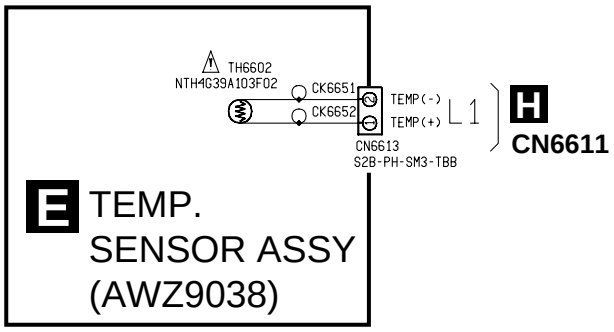
3.18 MAIN ASSY (15/15)

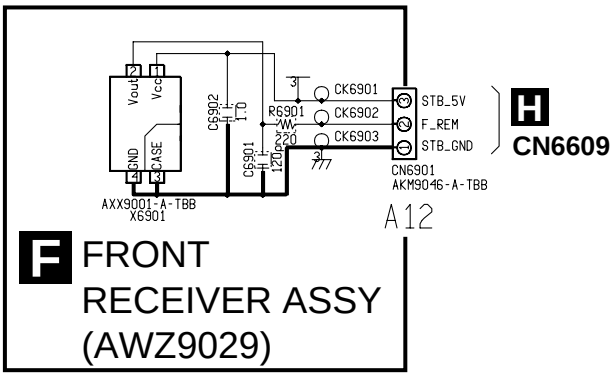


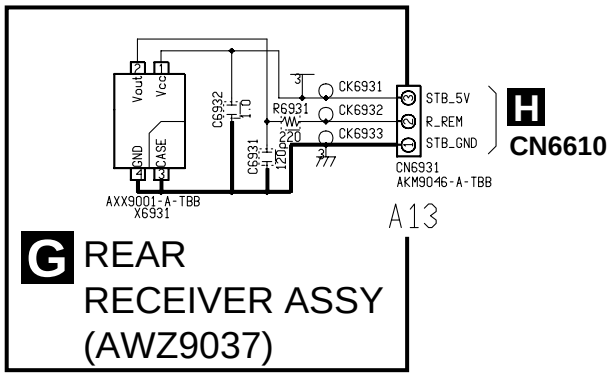
IC1704:LOGIC IC

3.19 FLICKER CONNECT, TEMP. SENSOR, FRONT RECEIVER AND REAR RECEIVER ASSEMBLIES



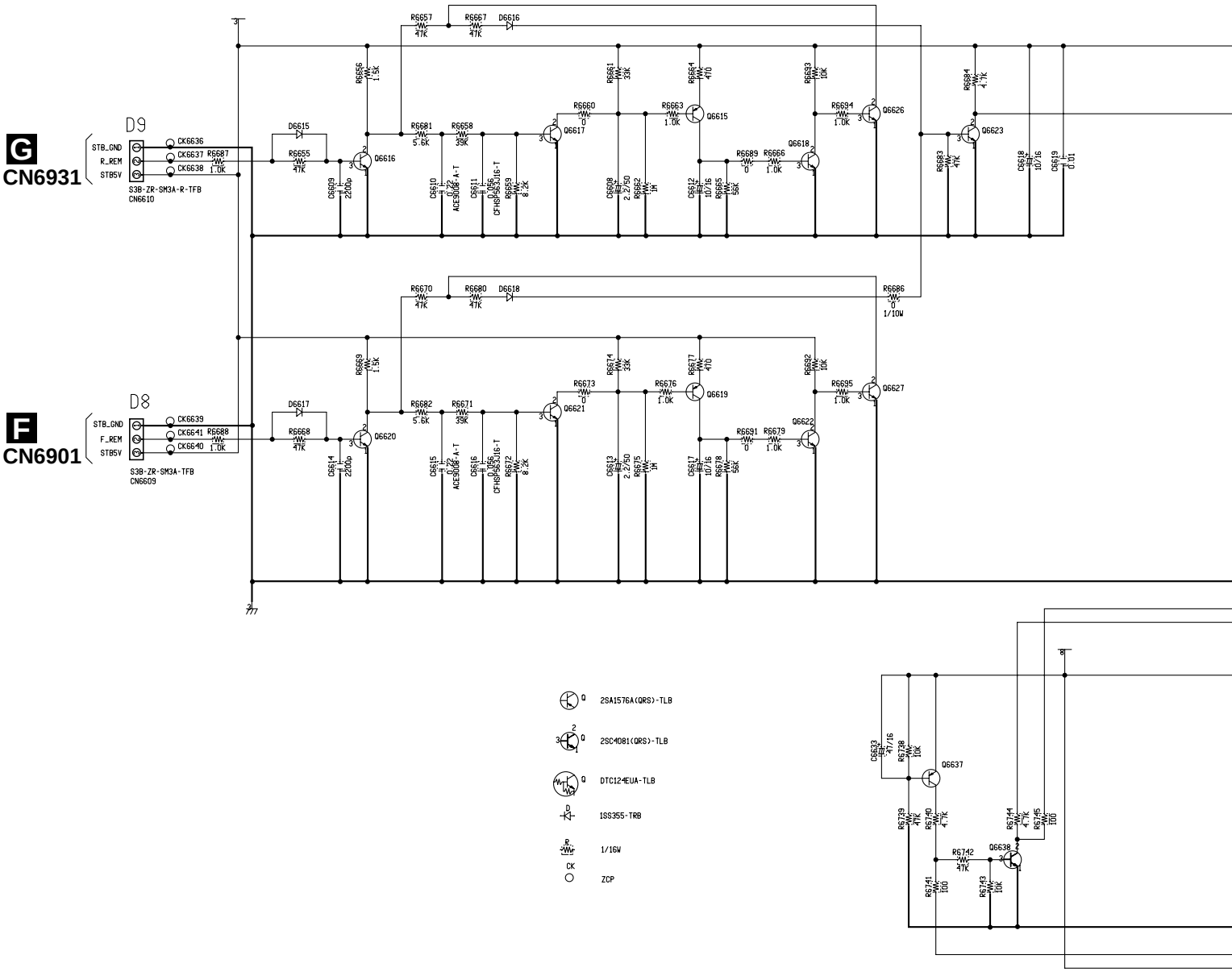


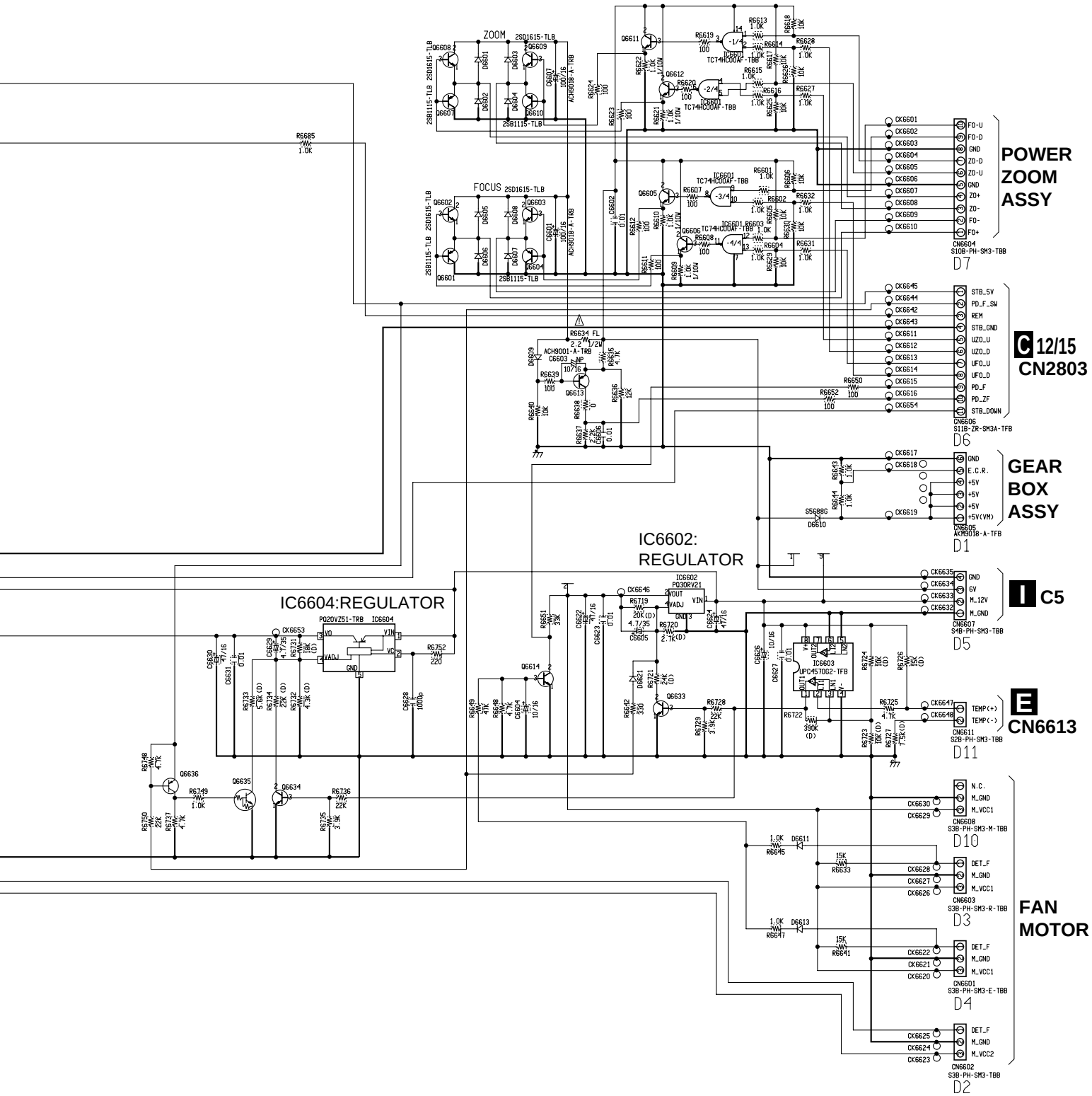




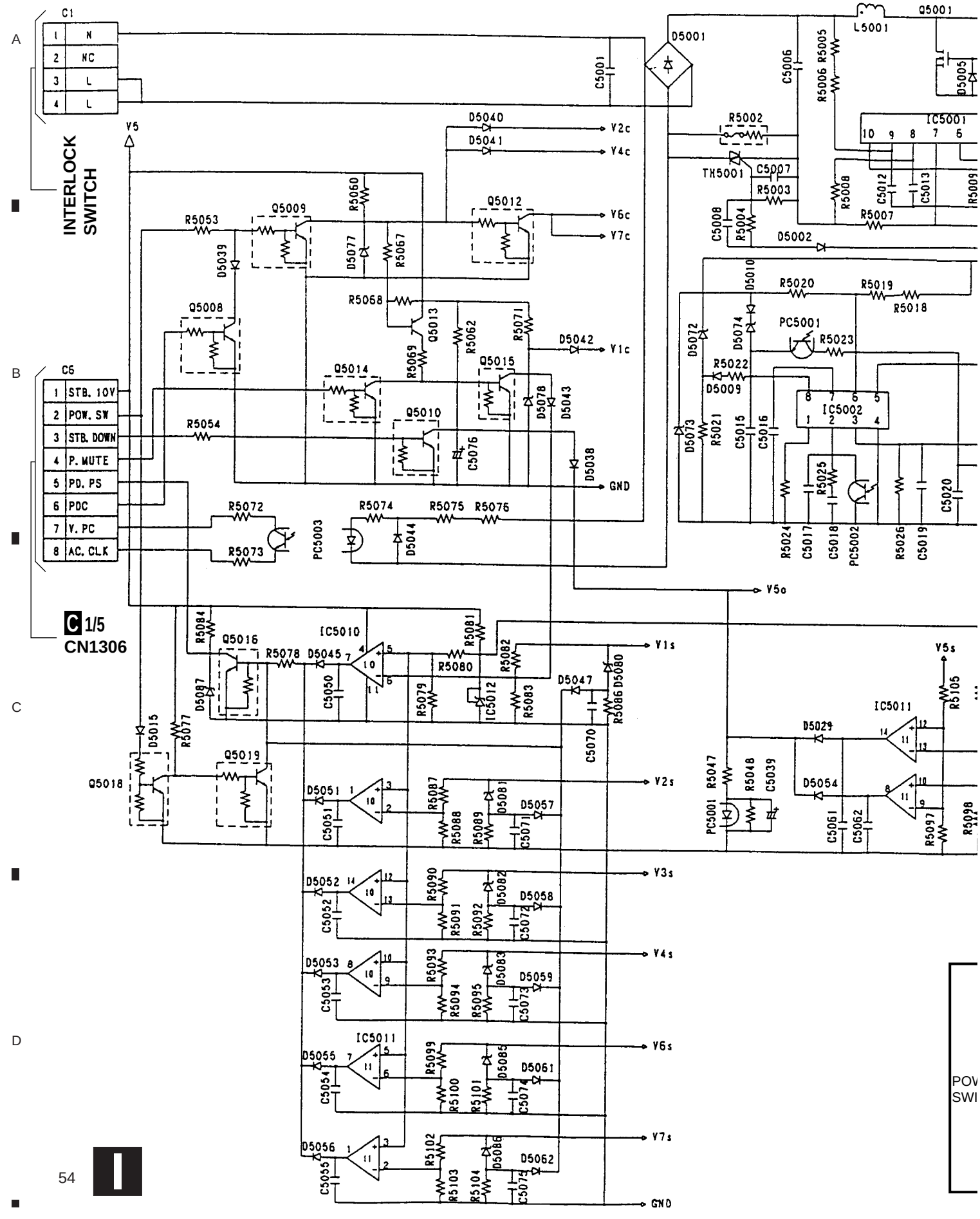
3.20 MOTOR DRIVE ASSY

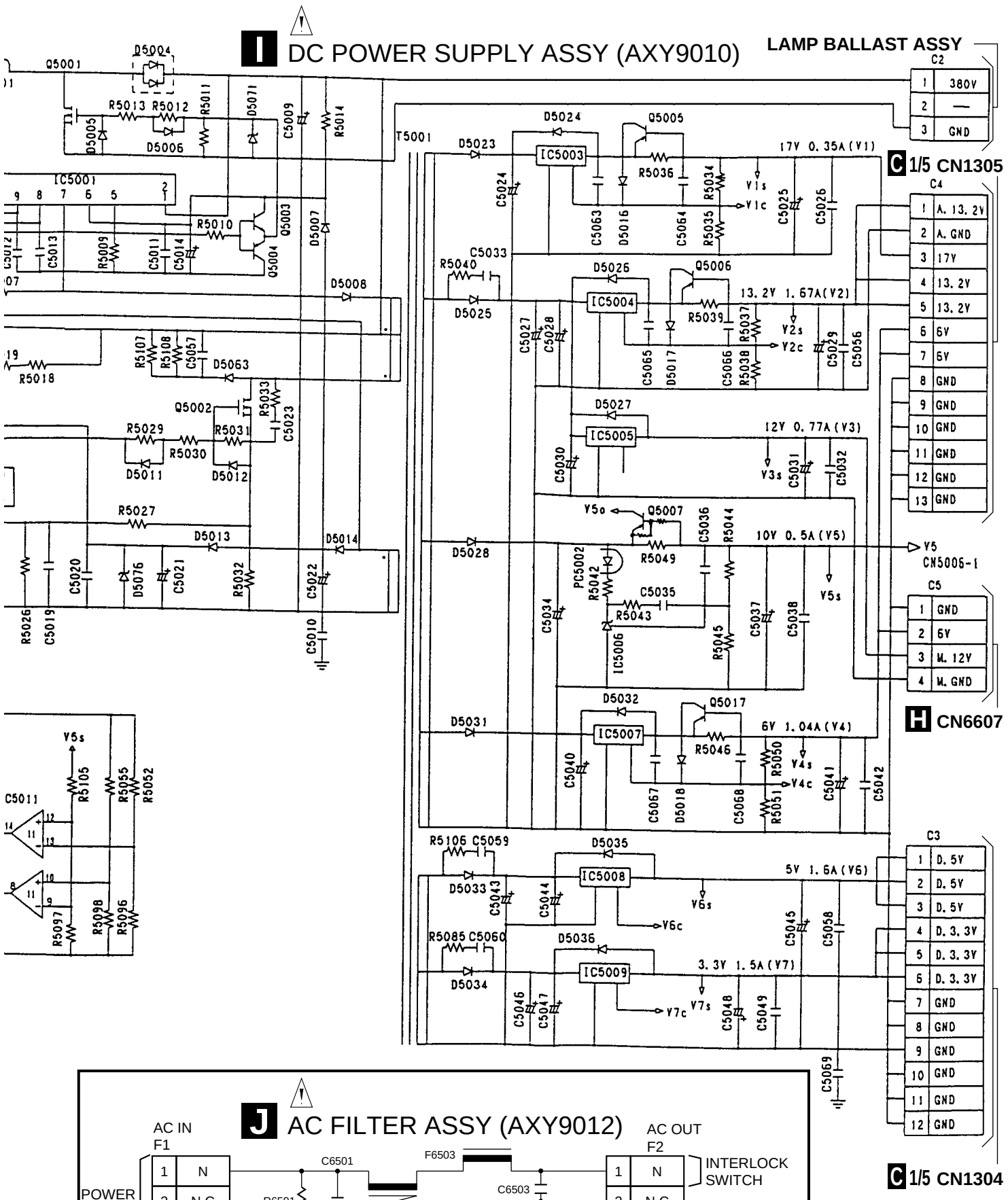
H MOTOR DRIVE ASSY (AWZ9028)




ZOOM
FOCUS
IC6602: REGULATOR
IC6604:REGULATOR
POWER ZOOM ASSY
C 12/15 CN2803
GEAR BOX ASSY
I C5
E CN6613
FAN MOTOR
D7
D6
D1
D5
D11
D10
D3
D4
D2

3.21 DC POWER SUPPLY AND AC FILTER ASSEMBLIES




I DC POWER SUPPLY ASSY (AXY9010)
LAMP BALLAST ASSY
C2
1 380V
2 —
3 GND
C 1/5 CN1305
C4
1 A. 13. 2V
2 A. GND
3 17V
4 13. 2V
5 13. 2V
6 6V
7 6V
8 GND
9 GND
10 GND
11 GND
12 GND
13 GND
T5001
IC5001
IC5003
17V 0. 35A (V1)
IC5004
13. 2V 1. 67A (V2)
IC5005
12V 0. 77A (V3)
IC5006
IC5007
6V 1. 04A (V4)
IC5008
5V 1. 6A (V5)
IC5009
3. 3V 1. 5A (V7)
Q5001
Q5002
Q5003
Q5004
Q5005
Q5006
Q5007
Q5017
D5004
D5005
D5006
D5007
D5008
D5011
D5012
D5013
D5014
D5023
D5024
D5025
D5026
D5027
D5028
D5031
D5032
D5033
D5034
D5035
D5036
D5063
D5076
R5013 R5012
R5011
R5071
R5014
R5010
R5018
R5107
R5108
R5057
R5033
R5023
R5029
R5031
R5030
R5027
R5032
R5026
R5020
R5019
R5040
R5039
R5037
R5038
R5042
R5049
R5043
R5045
R5046
R5050
R5051
R5105 C5059
R5085 C5060
R5055
R5052
R5098
R5096
R5097
C5011
C5012
C5013
C5014
C5007
C5009
C5010
C5021
C5022
C5024
C5025
C5026
C5027
C5028
C5029
C5030
C5031
C5032
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C5046
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C5048
C5049
C5056
C5063
C5064
C5065
C5066
C5067
C5068
C5069
D5016
D5017
D5018
PC5002
Y1s
Y1c
Y2s
Y2c
Y3s
Y5o
Y5s
Y6s
Y6c
Y7s
Y7c
V5s
CN5005-1
C5
1 GND
2 6V
3 M. 12V
4 M. GND
H CN6607
C3
1 D. 5V
2 D. 5V
3 D. 5V
4 D. 3. 3V
5 D. 3. 3V
6 D. 3. 3V
7 GND
8 GND
9 GND
10 GND
11 GND
12 GND
C 1/5 CN1304
J AC FILTER ASSY (AXY9012)
AC IN
F1
AC OUT
F2
POWER SWITCH
1 N
2 N.C
3 L
C6501
R6501
FU6501
AZE9004
F6501
F6502
F6503
C6502
C6503
1 N
2 N.C
3 L
4 L
INTERLOCK SWITCH
THERMOSTAT
F.G

4. PCB CONNECTION DIAGRAM

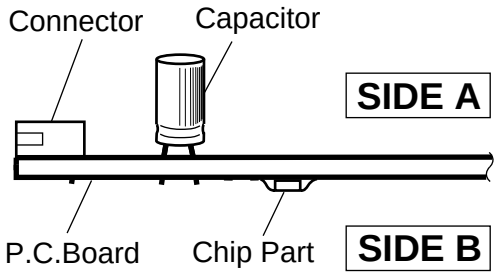
4.1 VIDEO ASSY(RVD-XG10 ONLY)

NOTE FOR PCB DIAGRAMS :

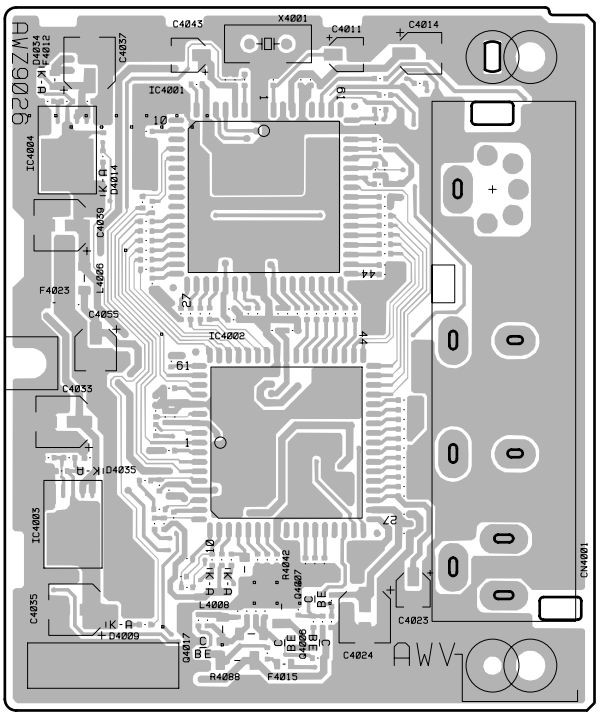
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



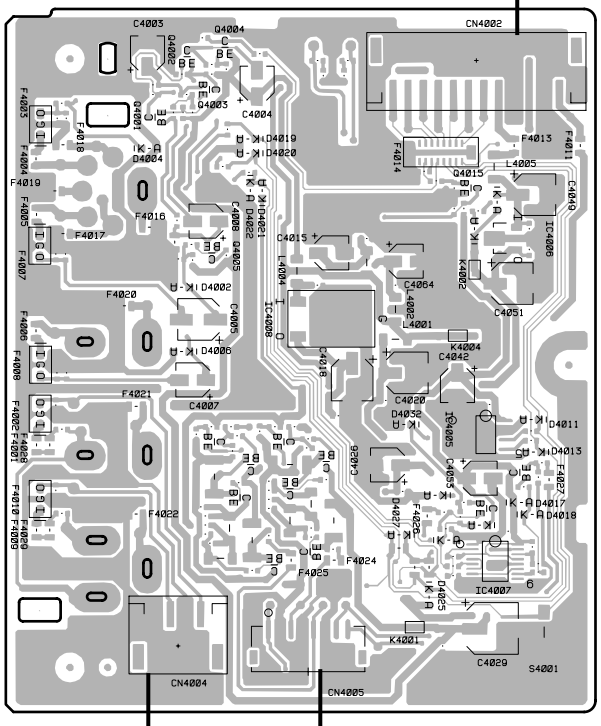
A VIDEO ASSY



SIDE A

C CN1301

A VIDEO ASSY



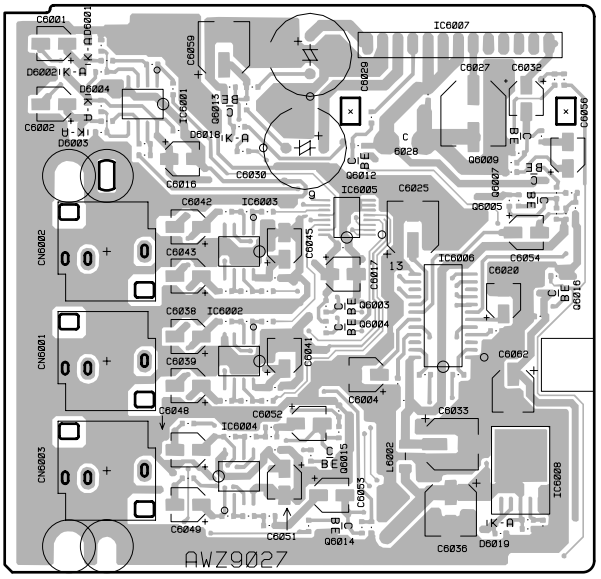
B CN6005 **C** CN1302

(ANP9014-A)

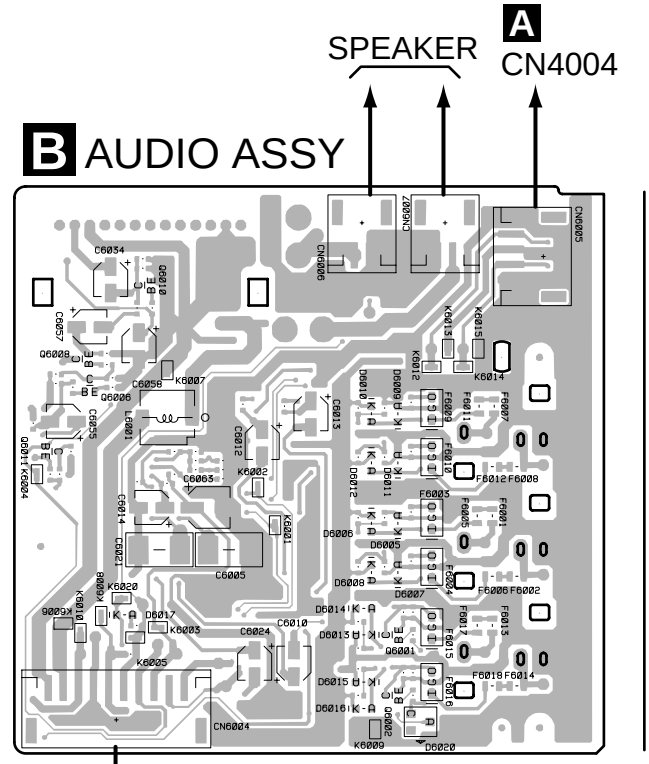
SIDE B

4.2 AUDIO ASSY

B AUDIO ASSY

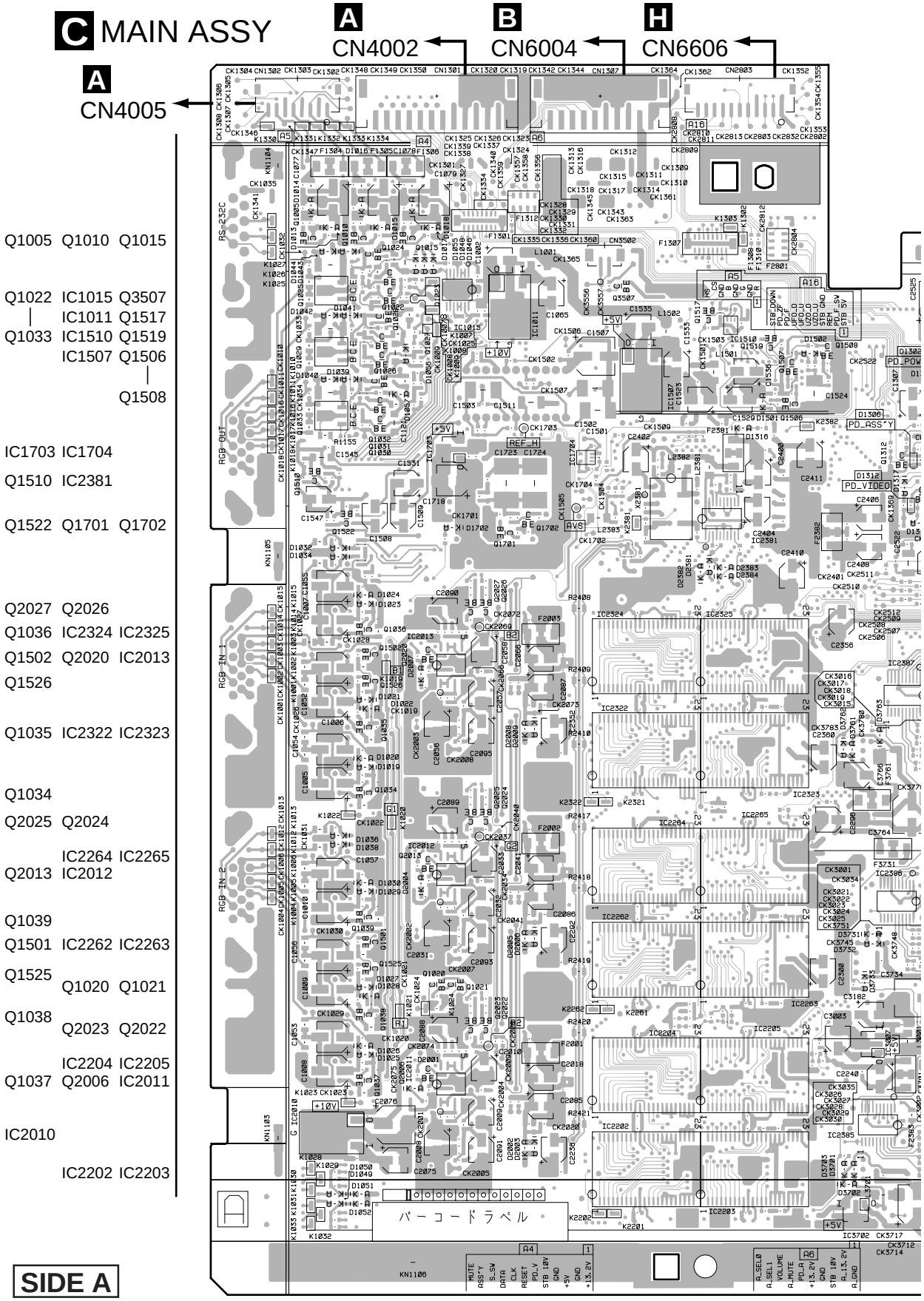


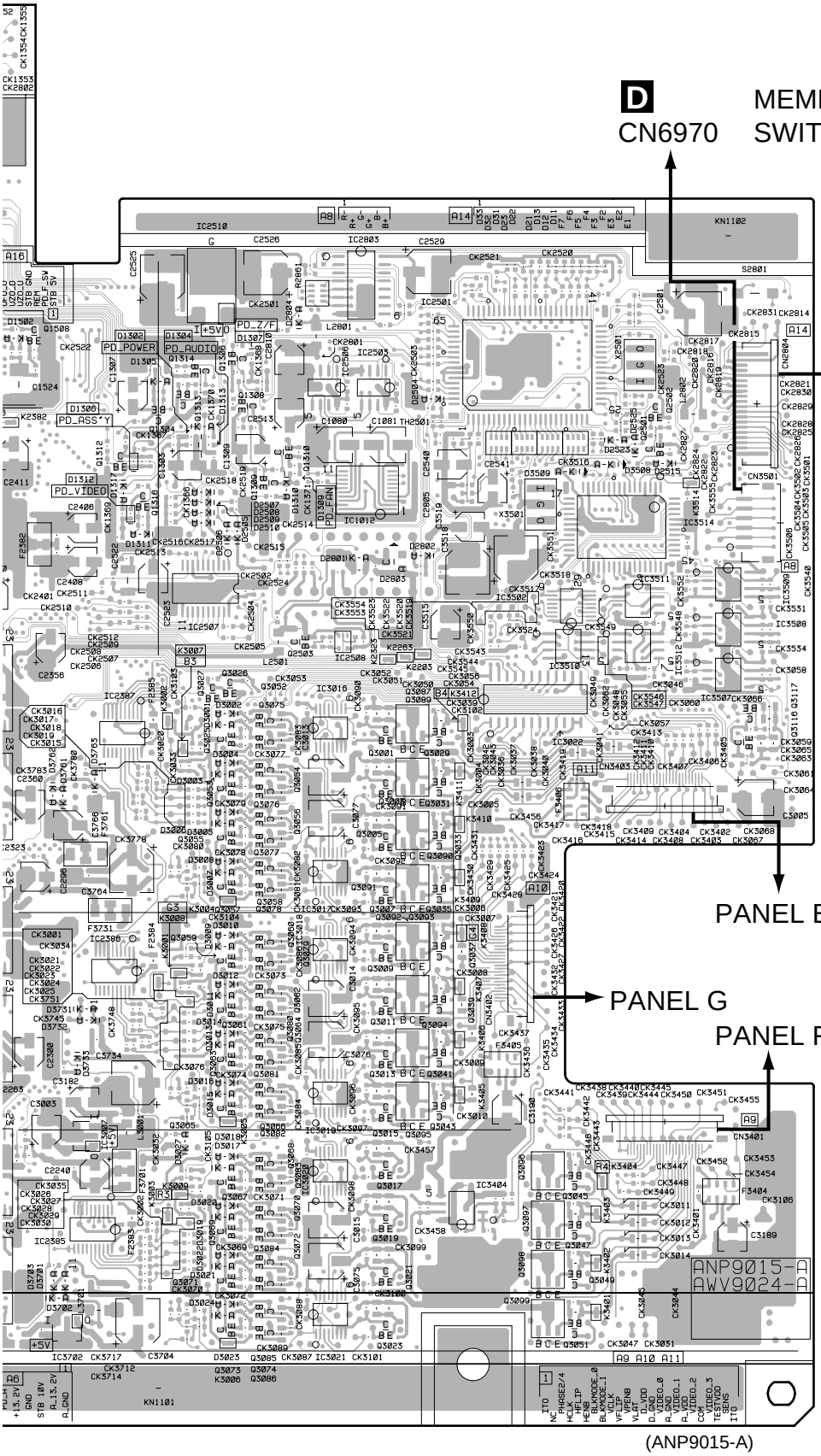
SIDE A



SIDE B

4.3 MAIN ASSY


C MAIN ASSY
A
CN4002
B
CN6004
H
CN6606
A
CN4005
Q1005 Q1010 Q1015
Q1022 IC1015 Q3507
IC1011 Q1517
Q1033 IC1510 Q1519
IC1507 Q1506
Q1508
IC1703 IC1704
Q1510 IC2381
Q1522 Q1701 Q1702
Q2027 Q2026
Q1036 IC2324 IC2325
Q1502 Q2020 IC2013
Q1526
Q1035 IC2322 IC2323
Q1034
Q2025 Q2024
IC2264 IC2265
Q2013 IC2012
Q1039
Q1501 IC2262 IC2263
Q1525
Q1020 Q1021
Q1038
Q2023 Q2022
IC2204 IC2205
Q1037 Q2006 IC2011
IC2010
IC2202 IC2203
RS-232C
RGB OUT
RGB IN 1
RGB IN 2
バーコードラベル
SIDE A



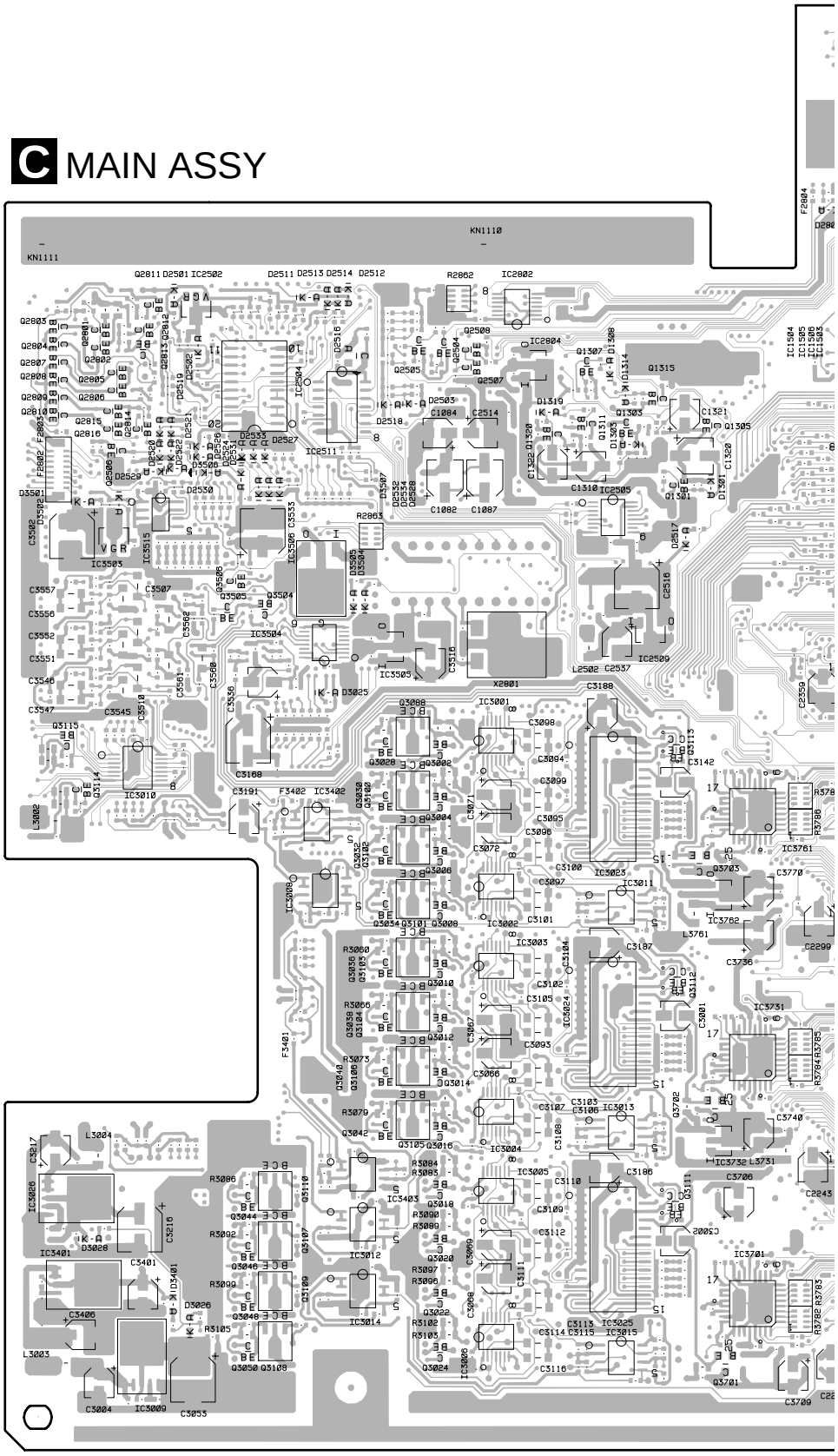
IC2510
IC2803

IC2501
Q1314 Q1306
IC2506 IC2503
Q1313 Q1308
Q1304 Q2502
Q1312 Q1310 Q2501
Q1316 Q1309 IC1012
IC3514
IC3507
IC2507 IC3502
IC3512
Q2503 IC2508
Q3025
Q3117
Q3027 IC3022 Q3116
IC2387 IC3016 Q3087
Q3001 Q3029
Q3052
Q3089
Q3003 Q3031
Q3058
Q3075
Q3090
Q3005 Q3033
Q3078
IC3017 Q3091
Q3007 Q3035
IC3018 Q3092
IC2386 Q3009 Q3037
Q3059
Q3093
Q3011 Q3039
Q3066
Q3079
Q3094
Q3013 Q3041
Q3082
IC3019 Q3095
Q3015 Q3043
IC3007
IC3020 Q3096
Q3067 Q3017 Q3045
Q3074
IC3404 Q3097
IC2385 Q3019 Q3047
Q3083
Q3098
Q3021 Q3049
Q3086
IC3702 IC3021 Q3099
Q3023 Q3051

(ANP9015-A)

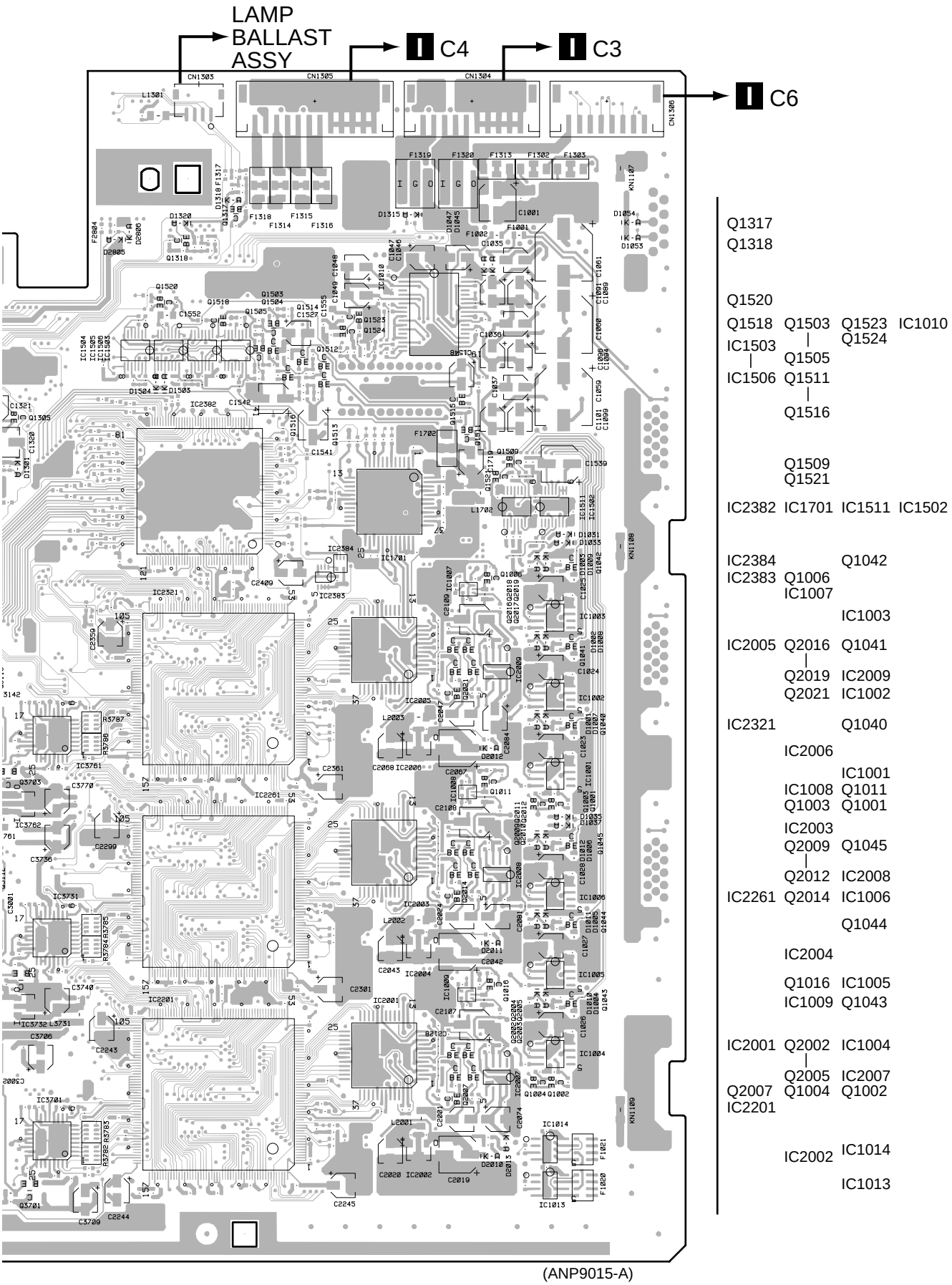
- This PCB is a six-layered board.

C MAIN ASSY



	IC2502		IC2802
	Q2505	Q2504	Q2508
Q2801	Q2507	IC2804	Q1307
Q2816	IC2504	IC2511	Q1315
Q1320	Q1311	Q1303	Q1305
Q2506			
	IC3515	IC2505	Q1301
IC3503			
		IC3506	
	Q3504		
	Q3506		
	IC3504	IC3505	IC2509
Q3115		Q3088	IC3001
	Q3028	Q3002	Q3113
Q3114	IC3010	Q3100	IC3023
	Q3030	Q3004	IC3761
	IC3402	Q3102	
	Q3032	Q3006	Q3703
IC3008	Q3101	IC3002	IC3762
	Q3034	Q3008	IC3011
		Q3103	
	Q3036	Q3010	IC3003
		Q3104	Q3112
	Q3038	Q3012	IC3024
		Q3106	IC3731
	Q3040	Q3014	
	Q3105	IC3004	Q3702
	Q3042	Q3016	IC3013
			IC3732
	Q3110	IC3403	IC3005
IC3026	Q3044	Q3018	Q3111
	Q3107	IC3012	IC3025
	Q3046	Q3020	
IC3401	Q3109	IC3014	IC3701
	Q3048	Q3022	
	Q3108	IC3006	IC3015
IC3009	Q3050	Q3024	Q3701

SIDE B

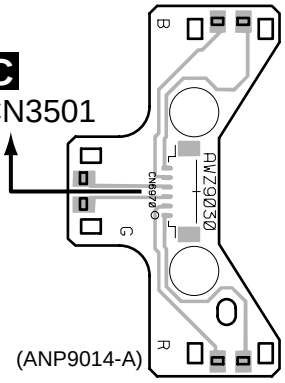


- This PCB is a six-layered board.

4.4 FLICKER CONNECT, TEMP. SENSOR, FRONT RECEIVER, REAR RECEIVER AND MOTOR DRIVE ASSEMBLIES

D FLICKER CONNECT ASSY

C CN3501



(ANP9014-A)

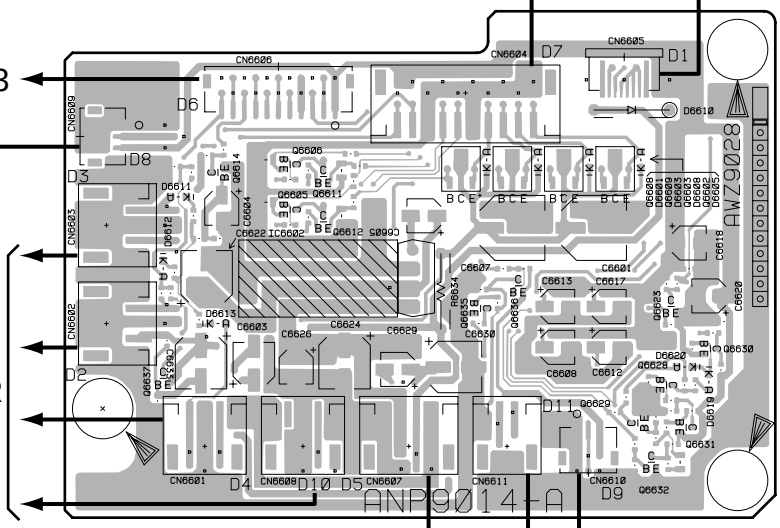
C CN2803

H MOTOR DRIVE ASSY

POWER ZOOM ASSY

GEAR BOX ASSY

FAN MOTOR



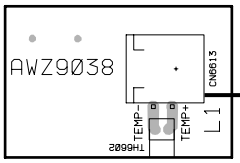
Q6614 Q6606
Q6605 Q6611
Q6637 IC6602 Q6612

Q6608 Q6603
Q6609 Q6602
Q6635 Q6636 Q6623
Q6628 – Q6632

(ANP9014-A)

I C5

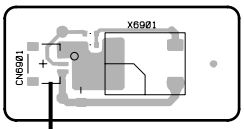
E TEMP. SENSOR ASSY



(ANP9016-A)

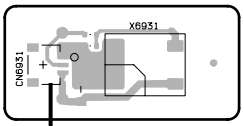
SIDE A

F FRONT RECEIVER ASSY



(ANP9014-A)

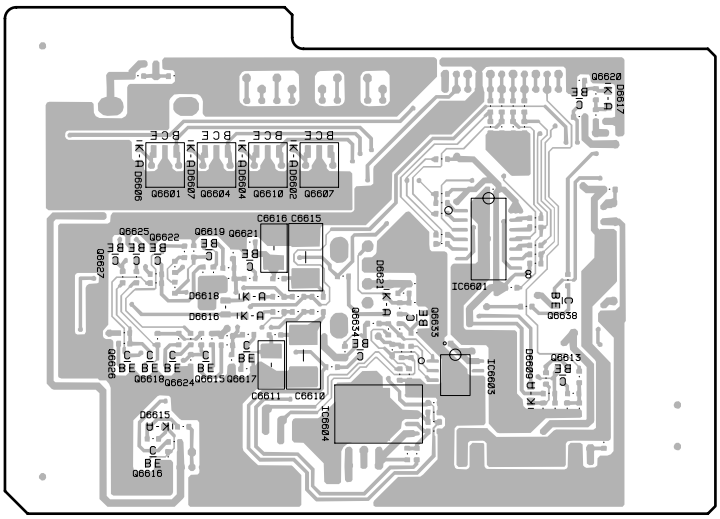
G REAR RECEIVER ASSY



(ANP9014-A)

SIDE B

H MOTOR DRIVE ASSY



(ANP9014-A)

Q6601 Q6604 Q6610 Q6607 IC6601 Q6620
Q6622 Q6621 Q6634 Q6633 Q6638
Q6624 – Q6627 IC6603 Q6613
Q6615 – Q6619 IC6604

5. PCB PARTS LIST

NOTES: ●*Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
●*When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω	→	*56 × 10¹*	→	*561*	*RD1/4PU 5 6 1 J*
47k Ω	→	*47 × 10³*	→	*473*	*RD1/4PU 4 7 3 J*
0.5 Ω	→	*R50*			*RN2H R 5 0 K*
1 Ω	→	*1R0*			*RS1P 1 R 0 K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	→	*562 × 10¹*	→	*5621*	*RN1/4PC 5 6 2 1 F*

Mark	No.	Description	Part No.
LIST OF ASSEMBLIES			
⚠NSP		MULTIPLE ASSY	AWV9023
		├VIDEO ASSY (∗1)	AWZ9026
		├AUDIO ASSY	AWZ9027
		├FLICKER CONNECT ASSY	AWZ9030
		├FRONT RECEIVER ASSY	AWZ9029
		├REAR RECEIVER ASSY	AWZ9037
		├MOTOR DRIVE ASSY	AWZ9039
		└TEMP. SENSOR ASSY	AWZ9032
		MAIN ASSY	AWV9024
⚠		DC POWER SUPPLY ASSY	AXY9010
⚠		AC FILTER ASSY	AXY9012
⚠		LAMP BALLAST ASSY	AWV9027

Note ∗1 : VIDEO Assy is not used RVD-XG10ED.
RVA-VK10 is supplied to the substitute as an option.

A VIDEO ASSY

SEMICONDUCTORS

IC4005	AT24C04N10SI2.5
IC4002	DDP3300A
IC4006	HA178L05UA
IC4003,IC4004	PQ20VZ51
IC4008	TA78M05F
IC4007	TC74HC4538AFS
IC4001	VPC3200A
Q4001,Q4003,Q4004,Q4008,Q4011	2SA1576A
Q4014,Q4017-Q4019	2SA1576A
Q4002,Q4005-Q4007,Q4009,Q4010	2SC4081
Q4012,Q4013,Q4021,Q4022	2SC4081
D4009,D4014,D4015,D4017,D4018	1SS355
D4023,D4024,D4033-D4035	1SS355
D4002,D4004,D4006,D4007,D4011	UDZ5.1B
D4013,D4019,D4020,D4025,D4026	UDZ5.1B
D4032	UDZ5.1B

Mark	No.	Description	Part No.
COILS AND FILTERS			
⚠		F4011-F4013,F4015,F4023-F4027 CHIP BEAD	ATF9003
⚠		F4014 EMI FILTER ARRAY	ATF9004
⚠		F4001,F4009 BEAD	ATF9013
⚠		F4004-F4006 BEAD	ATF9015
⚠		F4003,F4007,F4008 EMI FILTER	ATF9016
⚠		F4002,F4010 EMI FILTER	ATF9017
		L4007,L4009,L4011	LCTA1R5J3225
		L4001-L4006	LCTA1R8J3225
		L4008,L4010,L4012	LCTA3R3J3225
⚠		L4013-L4016	ATX9006

CAPACITORS

C4057,C4061,C4068	CCSRCH100D50
C4060,C4067,C4071-C4073,C4080	CCSRCH101J50
C4082,C4088,C4090	CCSRCH101J50
C4059,C4066,C4070	CCSRCH180J50
C4058,C4065,C4069,C4075-C4077	CCSRCH470J50
C4062,C4063,C4074	CCSRCH471J50
C4045,C4047	CCSRCH6R0D50
C4046,C4048	CCSRCH7R0D50
C4003,C4011,C4015,C4026	CEV100M16
C4042,C4043,C4053,C4064	CEV100M16
C4004	CEV1R0M50
C4005,C4014,C4018,C4020,C4049	CEV220M16
C4051,C4055	CEV220M16
C4023	CEV3R3M50
C4024,C4029,C4033,C4035,C4037	CEV470M16
C4039	CEV470M16
C4007,C4008	CEVR47M50
C4002,C4006	CKSRYB102K50
C4084,C4086,C4092,C4094	CKSRYB103K50
C4001,C4013,C4022,C4028	CKSRYB104K16
C4031,C4032,C4079,C4081,C4083	CKSRYB104K16
C4085,C4087,C4089,C4091,C4093	CKSRYB104K16
C4095	CKSRYB104K16
C4010,C4016,C4017,C4019,C4021	CKSRYB223K25
C4025,C4027,C4030,C4034,C4036	CKSRYB223K25
C4038,C4040,C4041,C4044,C4050	CKSRYB223K25
C4052,C4054,C4056	CKSRYB223K25
C4012	CKSRYF473Z50
C4009	CKSYB105K16

Mark	No.	Description	Part No.
RESISTORS			
	R4042,R4049,R4056,R4088-R4090 (820Ω, 1/2W)		ACN9010
	R4110-R4123		RS1/16S0R0J
	R4064		RS1/16S1001D
	R4084		RS1/16S1003D
	R4043,R4050,R4057,R4070,R4071		RS1/16S100J
	R4093-R4101,R4141-R4152		RS1/16S100J
	R4015,R4018,R4026-R4028		RS1/16S101J
	R4031,R4032,R4037,R4038		RS1/16S101J
	R4044,R4045,R4051,R4052		RS1/16S101J
	R4058-R4061,R4073,R4074,R4083		RS1/16S101J
	R4086,R4087,R4104		RS1/16S101J
	R4008,R4036,R4077,R4082,R4103		RS1/16S102J
	R4153,R4154		RS1/16S102J
	R4009,R4014,R4029,R4068		RS1/16S103J
	R4105-R4109,R4124-R4134		RS1/16S103J
	R4136-R4139		RS1/16S103J
	R4039,R4046,R4053		RS1/16S111J
	R4063,R4085		RS1/16S1302D
	R4062		RS1/16S1501D
	R4007		RS1/16S152J
	R4019		RS1/16S153J
	R4022-R4024,R4041,R4048,R4055		RS1/16S221J
	R4081,R4102,R4135		RS1/16S221J
	R4004,R4025,R4030		RS1/16S222J
	R4010		RS1/16S223J
	R4065		RS1/16S3001D
	R4040,R4047,R4054		RS1/16S331J
	R4016		RS1/16S333J
	R4012		RS1/16S471J
	R4034,R4035,R4075,R4076,R4078		RS1/16S472J
	R4001,R4011,R4021		RS1/16S473J
	R4006,R4013		RS1/16S562J
	R4005		RS1/16S680J
	R4002,R4003,R4020		RS1/16S750J
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN4001	S TERMINAL PIN JACK	AKB9001
	K4001,K4002,K4004	CHIP RING	AKX9002
	X4001	CRYSTAL	ASS9006
	CN4002	PH CONNECTOR	S12B-PH-SM3
	CN4004	PH CONNECTOR	S4B-PH-SM3
	CN4005	CONNECTOR 3P	S8B-ZR-SM3A

B AUDIO ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC6007		LA4485
	IC6008		PQ20VZ51
	IC6006		TA8184F
	IC6005		TC74HC4052AFT
	IC6001-IC6004		UPC4570G2
	Q6001,Q6002,Q6005-Q6010		2SC4081
	Q6013-Q6016		2SC4081
	Q6003,Q6004,Q6011,Q6012		DTC124EUA
	D6001-D6019		1SS355
	D6020		RD3.0MB
⚠	F6001,F6002,F6005-F6008	BEAD	ATF9013
⚠	F6011-F6014,F6017,F6018	BEAD	ATF9013
⚠	F6003,F6004,F6009,F6010	EMI FILTER	ATF9017
⚠	F6015,F6016	EMI FILTER	ATF9017
	L6001	CHIP CHOKE COIL	ATH9003
	L6002		LCTA390J3225
CAPACITORS			
	C6005,C6021		ACE9008
	C6027		ACH9018
	C6029,C6030		CEHAQ102M10
	C6028		CEHAQ102M16
	C6001,C6002,C6004,C6010		CEV100M16
	C6012,C6013,C6016,C6017,C6020		CEV100M16
	C6024,C6038,C6039,C6041-C6043		CEV100M16
	C6045,C6048,C6049,C6051-C6055		CEV100M16
	C6058		CEV100M16
	C6059		CEV101M6R3
	C6032,C6034,C6056,C6057		CEV1R0M50
	C6062,C6063		CEV220M16
	C6025,C6033,C6036		CEV470M16
	C6014		CEV4R7M35
	C6006,C6007,C6060,C6061		CKSRYB103K50
	C6003,C6009,C6011,C6019,C6026		CKSRYB223K25
	C6031,C6035,C6037		CKSRYB223K25
	C6022,C6023		CKSRYB472K50
	C6008,C6015,C6018,C6040,C6044		CKSRYF103Z50
	C6046,C6047,C6050		CKSRYF103Z50
RESISTORS			
	R6082,R6084		RS1/16S1001D
	R6031,R6040,R6041,R6050		RS1/16S1002D
	R6071,R6072,R6076,R6077		RS1/16S1201D
	R6001,R6022,R6030,R6069,R6074		RS1/16S1202D
	R6023,R6061,R6062		RS1/16S1501D
	R6059,R6060		RS1/16S1802D
	R6028,R6029		RS1/16S2401D
	R6068,R6073		RS1/16S2402D
	R6080,R6081		RS1/16S3301D
	R6038,R6039,R6048,R6049		RS1/16S4301D
	R6083,R6085		RS1/16S4700D
	R6096,R6097		RS1/16S9100D
	Other Resistors		RS1/16S□□□J
OTHERS			
	CN6001-CN6003	MINI JACK	AKN9002
	K6001-K6010,K6012-K6015,K6020	CHIP RING	AKX9002
		SCREW	BBZ30P080FMC
	CN6004	KR CONNECTOR	S10B-PH-SM3
	CN6006	PH CONNECTOR	S2B-PH-SM3
	CN6007	PH CONNECTOR	S2B-PH-SM3-R
	CN6005	PH CONNECTOR	S4B-PH-SM3

Mark	No.	Description	Part No.

C MAIN ASSY

SEMICONDUCTORS

	IC1013,IC1014	24LCS21A
	IC3515	AT24C01A10SI2.5
	IC1501	CXA2016S
	IC2001,IC2003,IC2005	CXA3026AQ
	IC1701	CXA3106AQ
	IC3701,IC3731,IC3761	CXD2306Q
	IC1001-IC1006	HA4201CB
	IC2007-IC2009	HFA1112IB
	IC2202-IC2205,IC2262-IC2265	HM530281RTT-20
	IC2322-IC2325	HM530281RTT-20
	IC2502,IC3503	M51951BML
	IC2011-IC2013,IC3008,IC3011-IC3015	M5223FP
	IC3402-IC3404,IC3507-IC3512	M5223FP
	IC1010	M52348FP
	IC2505,IC3504	M62354GP
	IC3022	M62358FP
	IC2201,IC2261,IC2321	PD0263A
	IC2382	PD4918A
	IC2801	PD5136
	IC2501	PD5454A9
	IC2507	PD5455A
	IC3514	PD5469A
	IC3023-IC3025	PM0010BM
	IC3009,IC3026,IC3401	PQ20VZ51
	IC3010	SN74LS06DB
	IC1011,IC1507,IC2510	TA78M05F
	IC2010,IC3506	TA78M10F
	IC3016-IC3021	TC4052BFS
	IC2802,IC3001-IC3006	TC4066BFS
	IC1015,IC1505	TC74ACT14FT
	IC2511	TC74HC125AF
	IC1511	TC74HC4052AFT
	IC1502,IC3502	TC74HC4053AFT
	IC2803	TC74HC4094AF
	IC2504	TC74HC541AF
	IC1504,IC1506	TC74LCX125FT
	IC2381	TC74LCX240FT
	IC2385-IC2387	TC74LCX574FT
	IC1503	TC74VHCT04AFT
	IC1007-IC1009	TC7S66FU
	IC2384	TC7SET04FU
	IC1510,IC1704,IC2508	TC7SH14FU
	IC2383	TC7WT74FU
	IC1703,IC2002,IC2004,IC2006,IC2509	UPC29L05T
	IC2804,IC3007,IC3505,IC3702,IC3732	UPC29L05T
	IC3762	UPC29L05T
	IC1012	UPD4721GS-GJG
	IC2503,IC2506	X25650S8I2.5
	Q3088,Q3100-Q3110	2SA1463
	Q1006,Q1011,Q1016,Q1301	2SA1576A
	Q1303-Q1305,Q1310,Q1311,Q1313	2SA1576A
	Q1315,Q1316,Q1501,Q1502,Q1507	2SA1576A
	Q1512,Q1514,Q1515,Q1522-Q1524	2SA1576A
	Q1702,Q2003,Q2005,Q2010,Q2012	2SA1576A
	Q2017,Q2019,Q2501,Q2504	2SA1576A
	Q2507,Q2508,Q2801,Q2802	2SA1576A
	Q2805,Q2806,Q2809,Q2810,Q3001	2SA1576A
	Q3003,Q3005,Q3007,Q3009,Q3011	2SA1576A
	Q3013,Q3015,Q3017,Q3019,Q3021	2SA1576A
	Q3023,Q3029,Q3031,Q3033,Q3035	2SA1576A
	Q3037,Q3039,Q3041,Q3043,Q3045	2SA1576A
	Q3047,Q3049,Q3051,Q3052,Q3054	2SA1576A
	Q3056,Q3058,Q3060,Q3062,Q3064	2SA1576A
	Q3066,Q3068,Q3070,Q3072,Q3074	2SA1576A
	Q3114-Q3117	2SA1576A
	Q3701-Q3703	2SA1738
	Q3087,Q3089-Q3099	2SC3736
	Q1005,Q1010,Q1015,Q1306-Q1309	2SC4081
	Q1312,Q1314,Q1317,Q1318,Q1320	2SC4081
	Q1506,Q1508,Q1510,Q1511,Q1513	2SC4081
	Q1516,Q2002,Q2004,Q2006,Q2009	2SC4081
	Q2011,Q2013,Q2016,Q2018,Q2020	2SC4081
	Q2502,Q2503,Q2506,Q2803,Q2804	2SC4081
	Q2807,Q2808,Q3002,Q3004,Q3006	2SC4081
	Q3008,Q3010,Q3012,Q3014,Q3016	2SC4081
	Q3018,Q3020,Q3022,Q3024,Q3028	2SC4081
	Q3030,Q3032,Q3034,Q3036,Q3038	2SC4081
	Q3040,Q3042,Q3044,Q3046,Q3048	2SC4081
	Q3050,Q3075-Q3086	2SC4081
	Q1022-Q1024,Q1026-Q1028	2SC4082
	Q1030-Q1032,Q1034-Q1045	2SC4082
	Q1525,Q1526,Q2007,Q2014	2SC4082
	Q2021-Q2027,Q3025,Q3053,Q3055	2SC4082
	Q3057,Q3059,Q3061,Q3063,Q3065	2SC4082
	Q3067,Q3069,Q3071,Q3073	2SC4082
	Q1025,Q1029,Q1033	2SC4504
	Q1001-Q1004,Q1020,Q1021,Q1509	DTC124EUA
	Q1517-Q1521,Q1701,Q2811-Q2816	DTC124EUA
	Q3026,Q3027,Q3504-Q3507	DTC124EUA
	Q3111-Q3113	UMY4N
	D1001-D1030,D1032-D1034	1SS355
	D1036-D1052,D1301,D1303,D1305	1SS355
	D1308,D1310,D1311,D1313-D1320	1SS355
	D1501-D1504,D1702,D2001-D2013	1SS355
	D2381-D2384,D2501-D2515	1SS355
	D2517-D2534,D2801,D2802	1SS355
	D2804-D2806,D3001-D3028,D3401	1SS355
	D3501,D3502,D3504,D3505	1SS355
	D3701-D3703,D3731-D3733	1SS355
	D3761-D3763	1SS355
	D1302,D1304,D1306,D1307,D1309	AEL9004-A
	D1312	AEL9004-A
	D2803	RD3.0MB
	D2516	RD6.8MB
	D1053,D1054	UDZ22B
	D1031,D1035,D3506-D3509	UDZ5.1B
	D1055-D1057	UDZ9.1B
	TH2501	NTH5G1M42B104K04TH-T

COILS AND FILTERS

⚠	F1302-F1306	CHIP EMI FILTER	ATF1129
⚠	F1001-F1015,F1017-F1019	CHIP BEAD	ATF9003
⚠	F2383-F2385	CHIP BEAD	ATF9003
⚠	F1301,F1307,F2802	EMI FILTER ARRAY	ATF9004
⚠	F1308,F1310,F1311,F1317	BEAD	ATF9005
⚠	F2803,F2804,F3401-F3403	BEAD	ATF9005
⚠	F1020,F1021,F1312,F2801	BEAD	ATF9006
⚠	F3404-F3406	BEAD	ATF9006
⚠	F1313-F1316,F1318,F1702	CHIP EMI FILTER	ATF9019

Mark	No.	Description	Part No.
⚠	F2001-F2003,F2381,F2382,F3701	CHIP EMI FILTER	ATF9019
⚠	F3731,F3761	CHIP EMI FILTER	ATF9019
⚠	F1319,F1320	CHIP EMI FILTER	ATF9020
⚠	L2201,L2384	CHIP INDUCTOR	ATX9002
⚠	L2385,L3702-L3704	CHIP INDUCTOR	ATX9003
⚠	L2386-L2400	CHIP INDUCTOR	ATX9004
⚠	L2401-L2403,L2503	CHIP INDUCTOR	ATX9005
⚠	L1702,L2001-L2003,L2502,L3001		LCTA5R6J3225
⚠	L3701,L3731,L3761		LCTA5R6J3225
⚠	L1001,L1301,L1501,L1502		LCTAR56J3225
⚠	L2381-L2383,L2501,L2801,L2802		LCTAR56J3225
⚠	L3002-L3004		LCTAR56J3225

SWITCH

	S2801	ASG9003

CAPACITORS

	C1501-C1503,C1524 (0.22µF)	ACE9008
	C1723,C1724 (3.3µF/25V)	ACE9013
	C1508,C1509,C2001,C2024,C2047 (3.3µF/25V)	ACH9013
	C2540,C3001,C3002,C3142 (3.3µF/25V)	ACH9013
	C1059-C1061 (470µF/10V)	ACH9019
	C2128-C2130	CCSRCH100D50
	C1711,C2246,C2302,C2362,C2524	CCSRCH101J50
	C1504,C1540	CCSRCH102J25
	C2816	CCSRCH121J50
	C1505	CCSRCH151J50
	C2116,C2120,C2124,C2221	CCSRCH220J50
	C2223-C2226,C2281,C2282	CCSRCH220J50
	C2341,C2342,C2396,C3078-C3081	CCSRCH220J50
	C3083-C3086,C3088-C3091,C3117	CCSRCH220J50
	C3119,C3121,C3123,C3125,C3127	CCSRCH220J50
	C3129,C3131,C3133,C3135,C3137	CCSRCH220J50
	C3139	CCSRCH220J50
	C1122-C1124,C2801,C2802	CCSRCH221J50
	C3082,C3087,C3092	CCSRCH270J50
	C3029-C3052	CCSRCH471J50
	C3118,C3120,C3122,C3124,C3126	CCSRCH680J50
	C3128,C3130,C3132,C3134,C3136	CCSRCH680J50
	C3138,C3140	CCSRCH680J50
	C2114,C2118,C2122	CCSRCH820J50
	C1088,C1093,C1098	CCSRCH8R0D50
	C1002,C1023-C1028,C1035-C1037	CEHV100M16
	C1046-C1049,C1065,C1084,C1089	CEHV100M16
	C1091,C1094,C1096,C1099,C1101	CEHV100M16
	C1303,C1307,C1309,C1310	CEHV100M16
	C1321,C1322,C1523,C1527,C1529	CEHV100M16
	C1531,C1533,C1535,C1536	CEHV100M16
	C1547,C1548,C1719,C2008-C2010	CEHV100M16
	C2018,C2020,C2031-C2033,C2041	CEHV100M16
	C2043,C2056-C2058,C2066,C2068	CEHV100M16
	C2074,C2075,C2081,C2084-C2091	CEHV100M16
	C2093,C2095,C2236,C2240	CEHV100M16
	C2243-C2245,C2292,C2296	CEHV100M16
	C2299-C2301,C2352,C2356	CEHV100M16
	C2359-C2361,C2400,C2402,C2404	CEHV100M16
	C2406,C2408-C2411,C2513,C2514	CEHV100M16
	C2537,C2541,C2810,C3003,C3004	CEHV100M16
	C3066-C3069,C3071,C3072,C3182	CEHV100M16
	C3186-C3191,C3217,C3401,C3406	CEHV100M16
	C3515,C3516,C3536,C3706,C3709	CEHV100M16
	C3736,C3740,C3766,C3770	CEHV100M16
	C1080-C1082,C1087,C3005	CEHV100M35
	C3013-C3015,C3075-C3077	CEHV100M35
	C2019,C2042,C2067,C2516,C2529	CEHV101M6R3
	C3704,C3734,C3764	CEHV101M6R3
	C2523	CEHV1R0M50
	C1005-C1010,C1052-C1057	CEHV220M16
	C1077-C1079,C1320,C1541,C1542	CEHV220M16
	C1718,C2107-C2109	CEHV220M16
	C2805	CEHV2R2M50
	C1001,C1507,C1539,C2076,C2501	CEHV470M16
	C2525,C2526,C3053,C3168,C3216	CEHV470M16
	C3502,C3518,C3519,C3533	CEHV470M16
	C1511,C2522	CFHSP104J16
	C1552	CFHSQ103J16
	C1301,C1304,C1306,C1308	CKSRYB102K50
	C1311-C1319,C1722,C2413,C3535	CKSRYB102K50
	C3538,C3539,C3548,C3553,C3558	CKSRYB102K50
	C1003,C1004,C1011-C1022	CKSRYB104K16
	C1029-C1031,C1038-C1045	CKSRYB104K16
	C1050,C1051,C1066,C1083	CKSRYB104K16
	C1085,C1086,C1090,C1092,C1095	CKSRYB104K16
	C1097,C1100,C1102-C1115,C1506	CKSRYB104K16
	C1510,C1512-C1516,C1521,C1522	CKSRYB104K16
	C1526,C1528,C1530,C1532,C1534	CKSRYB104K16
	C1543,C1544,C1546,C1551	CKSRYB104K16
	C1553,C1554,C1701-C1709,C1717	CKSRYB104K16
	C1720,C1725,C2002-C2007	CKSRYB104K16
	C2011-C2017,C2023,C2025-C2030	CKSRYB104K16
	C2034-C2040,C2046,C2048	CKSRYB104K16
	C2050-C2055,C2059-C2065	CKSRYB104K16
	C2071-C2073,C2077-C2080	CKSRYB104K16
	C2082,C2083,C2092,C2094	CKSRYB104K16
	C2096,C2097,C2099,C2101,C2103	CKSRYB104K16
	C2105,C2110-C2113,C2115,C2117	CKSRYB104K16
	C2119,C2121,C2123,C2201-C2220	CKSRYB104K16
	C2227-C2235,C2239,C2261-C2280	CKSRYB104K16
	C2283-C2291,C2295,C2321-C2340	CKSRYB104K16
	C2343-C2351,C2355,C2381-C2395	CKSRYB104K16
	C2397-C2399,C2401,C2403,C2405	CKSRYB104K16
	C2407,C2412,C2414-C2417	CKSRYB104K16
	C2502-C2512,C2515,C2517	CKSRYB104K16
	C2527,C2528,C2530-C2533	CKSRYB104K16
	C2535,C2536,C2538,C2539	CKSRYB104K16
	C2542-C2544,C2803,C2804	CKSRYB104K16
	C2807-C2809,C2811,C3028	CKSRYB104K16
	C3054-C3065,C3074,C3143,C3155	CKSRYB104K16
	C3157,C3159,C3161-C3167,C3170	CKSRYB104K16
	C3183-C3185,C3192-C3215,C3218	CKSRYB104K16
	C3402,C3407,C3413,C3416,C3419	CKSRYB104K16
	C3501,C3503,C3504,C3506,C3508	CKSRYB104K16
	C3565-C3568,C3701-C3703,C3705	CKSRYB104K16
	C3708,C3710,C3713,C3715-C3717	CKSRYB104K16
	C3731-C3733,C3735,C3738,C3739	CKSRYB104K16
	C3743,C3761-C3763,C3765	CKSRYB104K16
	C3768,C3769,C3774	CKSRYB104K16
	C1712,C3522,C3529,C3544	CKSRYB222K50
	C1525,C1710,C1726,C3006-C3012	CKSRYB223K25
	C3016-C3027,C3070,C3141	CKSRYB223K25
	C3144-C3154,C3171-C3181	CKSRYB223K25

Mark	No.	Description	Part No.
	C3403-C3405,C3408-C3412		CKSRYB223K25
	C3414,C3415,C3417,C3418		CKSRYB223K25
	C3420-C3422,C3514,C3517		CKSRYB223K25
	C3520,C3521,C3523,C3526,C3534		CKSRYB223K25
	C3537,C3540,C3541,C3563,C3564		CKSRYB223K25
	C2519-C2521,C2806,C3169		CKSRYB472K50
	C1119-C1121,C1545,C1555,C3507		CKSYB105K16
	C3509,C3510,C3545-C3547		CKSYB105K16
	C3550-C3552,C3555-C3557		CKSYB105K16
	C3560-C3562		CKSYB105K16
	C3093-C3116		CKSYB334K25

RESISTORS

	R2862	RA4C103J
	R3782-R3787	RA4C221J
	R2863	RA4C222J
	R2688-R2691	RA4C471J
	R2861	RA4C472J
	R1513,R1514	RD1/4PU154J
	R1511,R1512	RD1/4PU473J
	R1094-R1097,R1351,R1552,R1589	RS1/16S0R0J
	R2139,R2272,R2332,R2612,R3220	RS1/16S0R0J
	R3465-R3470,R3473-R3475,R3628	RS1/16S0R0J
	R3634,R3640	RS1/16S0R0J
	R3213	RS1/16S1000D
	R1083,R1085,R3472	RS1/16S1001D
	R1604,R1605,R2073,R2077,R2112	RS1/16S1002D
	R2116,R2127,R2131,R3163-R3166	RS1/16S1002D
	R3168-R3171,R3225-R3229	RS1/16S1002D
	R3234-R3238,R3240-R3247	RS1/16S1002D
	R3253-R3256,R3258-R3265	RS1/16S1002D
	R1027-R1032,R2005,R2026,R2047	RS1/16S100J
	R2162-R2164,R2386-R2393	RS1/16S100J
	R2395-R2400,R2402-R2407	RS1/16S100J
	R2411-R2416,R2423-R2425	RS1/16S100J
	R2429,R2430,R2432,R2578-R2580	RS1/16S100J
	R2598-R2600,R2602-R2604	RS1/16S100J
	R3217-R3219,R3295-R3318,R3712	RS1/16S100J
	R3742,R3772,R3776,R3778,R3780	RS1/16S100J
	R1048,R1052,R1056,R1059,R1063	RS1/16S101J
	R1067,R1070,R1074,R1078	RS1/16S101J
	R1086-R1089,R1092,R1093	RS1/16S101J
	R1098-R1100,R1105,R1106	RS1/16S101J
	R1109-R1114,R1123,R1125,R1137	RS1/16S101J
	R1139,R1151,R1153,R1183-R1185	RS1/16S101J
	R1354,R1360,R1361,R1366,R1367	RS1/16S101J
	R1507-R1510,R1526,R1527	RS1/16S101J
	R1533,R1534,R1553,R1554	RS1/16S101J
	R1561,R1562,R1564,R1578,R1601	RS1/16S101J
	R1606,R1607,R1609,R1715,R2237	RS1/16S101J
	R2289,R2349,R3001-R3012,R3028	RS1/16S101J
	R3041,R3054,R3067,R3080,R3093	RS1/16S101J
	R3137-R3139,R3142-R3145	RS1/16S101J
	R3221,R3222,R3279-R3284,R3319	RS1/16S101J
	R3322,R3325,R3328-R3333	RS1/16S101J
	R3401-R3433	RS1/16S101J
	R1082,R1084,R1115,R1129,R1143	RS1/16S102J
	R1309,R1322,R1346,R1348,R1359	RS1/16S102J
	R1521,R1548,R1549,R1593,R1602	RS1/16S102J
	R1703,R1720,R1723,R2003,R2024	RS1/16S102J
	R2045,R2433-R2435,R2438-R2441	RS1/16S102J
	R2503-R2508,R2571,R2685	RS1/16S102J
	R2826,R2827,R2840,R3531	RS1/16S102J

Mark	No.	Description	Part No.
	R3661,R3662		RS1/16S102J
	R1020,R1022,R1024,R1025,R1047		RS1/16S103J
	R1057,R1058,R1068,R1069,R1081		RS1/16S103J
	R1101,R1102,R1107,R1108,R1315		RS1/16S103J
	R1317,R1335,R1338,R1342,R1344		RS1/16S103J
	R1364,R1370,R1546,R1565,R1572		RS1/16S103J
	R1574,R1577,R1585,R2064-R2069		RS1/16S103J
	R2165,R2167,R2169,R2171,R2173		RS1/16S103J
	R2175,R2210,R2211,R2236		RS1/16S103J
	R2270,R2271,R2288,R2330,R2331		RS1/16S103J
	R2348,R2426,R2436,R2551		RS1/16S103J
	R2562-R2565,R2572,R2605,R2607		RS1/16S103J
	R2619-R2628,R2631,R2632		RS1/16S103J
	R2636,R2637,R2639,R2640		RS1/16S103J
	R2642,R2643,R2645,R2671		RS1/16S103J
	R2677-R2679,R2683,R2684,R2687		RS1/16S103J
	R2694,R2801,R2802,R2851		RS1/16S103J
	R2859,R2860,R3174,R3175		RS1/16S103J
	R3620-R3624,R3629,R3630		RS1/16S103J
	R3635,R3636,R3653-R3657		RS1/16S103J
	R3663-R3665,R3669,R3672-R3674		RS1/16S103J
	R1373,R2692		RS1/16S104J
	R1556		RS1/16S105J
	R3214-R3216		RS1/16S1100D
	R1502,R1503,R3167,R3239,R3257		RS1/16S1202D
	R3448,R3454		RS1/16S1202D
	R2075,R2114,R2129		RS1/16S1203D
	R1117,R1131,R1145		RS1/16S121J
	R1121,R1135,R1149,R1313,R1324		RS1/16S122J
	R1543,R2839,R3013-R3027		RS1/16S122J
	R1544		RS1/16S123J
	R3560		RS1/16S124J
	R3223,R3232,R3252,R3286,R3346		RS1/16S1302D
	R2444		RS1/16S132J
	R1005,R1007,R1009,R1014,R1016		RS1/16S133J
	R1018,R1165,R1167,R1169,R1174		RS1/16S133J
	R1176,R1178		RS1/16S133J
	R3710,R3740,R3770		RS1/16S1500D
	R3285,R3347,R3713,R3743,R3773		RS1/16S1501D
	R2078,R2117,R2132,R3250,R3450		RS1/16S1502D
	R3456,R3460,R3462		RS1/16S1502D
	R3146,R3147,R3152		RS1/16S151J
	R1312		RS1/16S152J
	R1308,R1343,R1363,R1369		RS1/16S153J
	R1702,R1722		RS1/16S1601D
	R3224,R3233		RS1/16S161J
	R2834,R2837		RS1/16S162J
	R2212,R2218,R2220,R2233,R2234		RS1/16S181J
	R2284,R2285,R2344,R2345,R2381		RS1/16S181J
	R3148-R3151,R3153-R3160		RS1/16S181J
	R3627,R3633,R3639		RS1/16S184J
	R3209-R3212		RS1/16S2000D
	R2080,R2119,R2134,R3268-R3270		RS1/16S2002D
	R3447,R3453,R3459		RS1/16S2002D
	R3567,R3641,R3645,R3649		RS1/16S203J
	R3642,R3646,R3650		RS1/16S204J
	R2076,R2115,R2130		RS1/16S2200D
	R3471		RS1/16S2201D
	R3230,R3248,R3266		RS1/16S2202D
	R1037-R1042,R2177-R2182,R2383		RS1/16S220J

Mark	No.	Description	Part No.
	R2385,R2443		RS1/16S220J
	R1314,R1318,R1336,R2842		RS1/16S221J
	R3708,R3709,R3738,R3739		RS1/16S221J
	R3768,R3769		RS1/16S221J
	R1339,R1349,R1541,R1567-R1569		RS1/16S222J
	R1594,R1603,R2652,R2807		RS1/16S222J
	R2830-R2832,R2835,R2852,R3320		RS1/16S222J
	R3323,R3326		RS1/16S222J
	R1302,R1316,R1540,R1547,R1566		RS1/16S223J
	R1600,R2166,R2168,R2170,R2172		RS1/16S223J
	R2174,R2176,R2569,R2570		RS1/16S223J
	R2610,R2611,R2809,R3334,R3337		RS1/16S223J
	R3340,R3343		RS1/16S223J
	R2573		RS1/16S224J
	R2577		RS1/16S2401D
	R2833,R2836		RS1/16S242J
	R3518,R3520-R3524		RS1/16S244J
	R3290,R3292,R3294		RS1/16S2701D
	R3449,R3455,R3461		RS1/16S2702D
	R1116,R1130,R1144,R1331,R1570		RS1/16S271J
	R1337,R1347,R1571		RS1/16S272J
	R2583		RS1/16S274J
	R1704		RS1/16S3001D
	R1122,R1136,R1150		RS1/16S302J
	R3616		RS1/16S303J
	R1517,R1519,R1560,R1701		RS1/16S3300D
	R1706-R1708,R3251		RS1/16S3300D
	R3451,R3457,R3463		RS1/16S3301D
	R1505		RS1/16S3302D
	R1506,R1528,R1573,R1575,R1580		RS1/16S330J
	R1352,R1563,R2230		RS1/16S331J
	R1090,R1091,R1719,R2641,R3321		RS1/16S332J
	R3324,R3327		RS1/16S332J
	R1501,R2595,R2596		RS1/16S333J
	R3580,R3583,R3584		RS1/16S334J
	R3106-R3135,R3582		RS1/16S362J
	R1557		RS1/16S3901D
	R3231,R3249,R3267		RS1/16S3902D
	R1345,R1542,R1586,R3349		RS1/16S392J
	R3651		RS1/16S394J
	R2004,R2025,R2046,R2828,R2829		RS1/16S432J
	R3517,R3554,R3555		RS1/16S4700D
	R1559,R2070,R2074,R2109,R2113		RS1/16S4701D
	R2124,R2128,R3289,R3291,R3293		RS1/16S4701D
	R1545,R1583,R1705,R1709-R1711		RS1/16S470J
	R1716,R3507,R3508,R3510		RS1/16S470J
	R1118,R1132,R1146,R1303,R1323		RS1/16S471J
	R1558,R2501,R2509-R2512		RS1/16S471J
	R2514-R2527,R2531-R2540		RS1/16S471J
	R2549,R2550,R2552,R2553		RS1/16S471J
	R2556,R2557,R2566-R2568,R2606		RS1/16S471J
	R2609,R2664,R2665,R2676		RS1/16S471J
	R2680-R2682,R2686,R2693		RS1/16S471J
	R2812-R2814,R3271-R3274,R3515		RS1/16S471J
	R3528-R3530,R3609-R3611,R3615		RS1/16S471J
	R3670,R3671		RS1/16S471J
	R1026,R1033,R1043,R1046		RS1/16S472J
	R1327-R1330,R1334,R1341		RS1/16S472J
	R1355,R1356,R1365,R1371		RS1/16S472J
	R1524,R1525,R1596-R1598,R1714		RS1/16S472J
	R2140-R2143,R2214,R2219,R2221		RS1/16S472J

Mark	No.	Description	Part No.
	R2229,R2280,R2340,R2502,R2513		RS1/16S472J
	R2581,R2582,R2588-R2592,R2594		RS1/16S472J
	R2597,R2608,R2630,R2638,R2661		RS1/16S472J
	R2811,R3161,R3162,R3275-R3278		RS1/16S472J
	R3287,R3288,R3348,R3464,R3514		RS1/16S472J
	R3556,R3557,R3577,R3578,R3581		RS1/16S472J
	R3675,R3715,R3745,R3775		RS1/16S472J
	R1044,R1045,R1080,R1103,R1104		RS1/16S473J
	R1301,R1374,R1582,R1587		RS1/16S473J
	R1590-R1592,R1718,R2613-R2618		RS1/16S473J
	R2646-R2650,R2662,R3644,R3647		RS1/16S473J
	R1504		RS1/16S5101D
	R3501-R3503,R3506		RS1/16S512J
	R3446,R3452,R3458		RS1/16S5601D
	R1120,R1134,R1148,R1306,R1307		RS1/16S562J
	R1319,R1320,R1353,R1358,R1595		RS1/16S562J
	R1599		RS1/16S562J
	R1321,R2548,R3579,R3585,R3586		RS1/16S563J
	R3643,R3648,R3652		RS1/16S563J
	R3136,R3198-R3200		RS1/16S6200D
	R3504		RS1/16S622J
	R2079,R2118,R2133		RS1/16S6801D
	R2841		RS1/16S681J
	R1325,R1326,R3505		RS1/16S682J
	R1530,R2808		RS1/16S683J
	R3201-R3204		RS1/16S7500D
	R1518,R1520		RS1/16S7501D
	R2002,R2023,R2044,R2183-R2188		RS1/16S750J
	R1049,R1060,R1071,R1310,R1340		RS1/16S751J
	R1362,R1368,R2838		RS1/16S751J
	R1311		RS1/16S752J
	R3205-R3208		RS1/16S8200D
	R1050,R1061,R1072		RS1/16S820J
	R1332,R1357,R3626,R3632,R3638		RS1/16S822J
	R1004,R1006,R1008,R1013,R1015		RS1/16S912J
	R1017,R1166,R1168,R1170,R1175		RS1/16S912J
	R1177,R1179		RS1/16S912J
	R1126,R1140,R1154		RS1/2S221J
	Other Resistors		RS1/10S□□□J

OTHERS

J2801	JUMPER WIRE	ADX9154
CN3401-CN3403	24P CONNECTOR	AKM9044
CN2804	18P CONNECTOR	AKM9045
CN1001-CN1003	MINI D-SUB 15P	AKP9008
CN1004	D-SUB 9P	AKP9009
K1001-K1033,K1302,K1303	CHIP RING	AKX9002
K1330-K1334,K2201-K2203	CHIP RING	AKX9002
K2261-K2263,K2321-K2323	CHIP RING	AKX9002
K2381,K2382,K3001-K3009	CHIP RING	AKX9002
K3401-K3412,K3514	CHIP RING	AKX9002
KN1101-KN1111	GASCKET	ANK9016
X2801	CERAMIC RESONATOR	ASS9005
X2381	PLL RESONATOR	ASS9008
X2501,X3501	CERAMIC RESONATOR	ASS9009
CN3502	ZH CONNECTOR	B2B-ZR-SM3
CN1307	KR CONNECTOR	S10B-PH-SM3
CN1304	KR CONNECTOR	S10B-PH-SM3-R
CN2803	CONNECTOR 11P	S11B-ZR-SM3A
CN1301	PH CONNECTOR	S12B-PH-SM3
CN1305	PH CONNECTOR	S12B-PH-SM3-R
CN3501	CONNECTOR 6P	S6B-ZR-SM3A
CN1306	PH CONNECTOR	S8B-PH-SM3
CN1302	CONNECTOR 3P	S8B-ZR-SM3A

Mark	No.	Description	Part No.

D FLICKER CONNECT ASSY

OTHERS

	CN6970	6P PLUG	AKM9043

E TEMP. SENSOR ASSY

SEMICONDUCTORS

⚠	TH6602		NTH4G39A103F02

OTHERS

	CN6613	PH CONNECTOR	S2B-PH-SM3

F FRONT RECEIVER ASSY

CAPACITORS

	C6901		CCSRCH121J50
	C6902		CKSYB105K16

RESISTORS

	R6901		RS1/16S221J

OTHERS

	CN6901	3P CONNECTOR	AKM9046
	X6901	REMOTE RECEIVER UNIT	AXX9001

G REAR RECEIVER ASSY

CAPACITORS

	C6931		CCSRCH121J50
	C6932		CKSYB105K16

RESISTORS

	R6931		RS1/16S221J

OTHERS

	CN6931	3P CONNECTOR	AKM9046
	X6931	REMOTE RECEIVER UNIT	AXX9001

H MOTOR DRIVE ASSY

SEMICONDUCTORS

	IC6604	PQ20VZ51
	IC6602	PQ30RV21
	IC6601	TC74HC00AF
	IC6603	UPC4570G2
	Q6613,Q6615,Q6619,Q6636,Q6637	2SA1576A
	Q6601,Q6604,Q6607,Q6610	2SB1115
	Q6605,Q6606,Q6611,Q6612,Q6614	2SC4081
	Q6616-Q6618,Q6620-Q6623	2SC4081
	Q6626,Q6627,Q6633,Q6634,Q6638	2SC4081
	Q6602,Q6603,Q6608,Q6609	2SD1615
	Q6635	DTC124EUA
	D6601-D6609,D6611,D6613	1SS355
	D6615-D6618,D6621	1SS355
	D6610	S5688G

CAPACITORS

	C6610,C6615 (0.72µF)	ACE9008
	C6603 (10µF/16V)	ACH9001
	C6601,C6607 (100µF/16V)	ACH9018
	C6612,C6617,C6618	CEHV100M16
	C6608,C6613	CEHV2R2M50
	C6604,C6626	CEV100M16
	C6622,C6624,C6630,C6633	CEV470M16
	C6605,C6629	CEV4R7M35
	C6611,C6616	CFHSP563J16
	C6628	CKSRYB102K50
	C6609,C6614	CKSRYB222K50
	C6602,C6606,C6619,C6623	CKSRYF103Z50
	C6627,C6631	CKSRYF103Z50

RESISTORS

⚠	R6634	RD1/2PMF2R2J
	R6638,R6660,R6673,R6689,R6691	RS1/16S0R0J
	R6723,R6724	RS1/16S1002D
	R6607,R6608,R6611,R6612	RS1/16S101J
	R6619,R6620,R6623,R6624,R6639	RS1/16S101J
	R6650,R6652,R6741,R6745	RS1/16S101J
	R6601-R6604,R6613-R6616	RS1/16S102J
	R6627,R6628,R6631,R6632	RS1/16S102J
	R6643-R6645,R6647,R6663,R6666	RS1/16S102J
	R6676,R6679,R6685,R6687,R6688	RS1/16S102J
	R6694,R6695,R6749	RS1/16S102J
	R6605,R6606,R6617,R6618	RS1/16S103J
	R6625,R6626,R6629,R6630,R6640	RS1/16S103J
	R6692,R6693,R6738,R6743	RS1/16S103J
	R6662,R6675	RS1/16S105J
	R6636	RS1/16S123J
	R6726	RS1/16S1502D
	R6656,R6669	RS1/16S152J
	R6633,R6641	RS1/16S153J
	R6731	RS1/16S1802D
	R6719	RS1/16S2002D
	R6734	RS1/16S2202D
	R6752	RS1/16S221J
	R6637	RS1/16S222J
	R6728,R6736,R6750	RS1/16S223J
	R6721	RS1/16S2402D
	R6720	RS1/16S2701D
	R6642	RS1/16S331J
	R6651,R6661,R6674	RS1/16S333J
	R6722	RS1/16S3903D
	R6729,R6735	RS1/16S392J
	R6658,R6671	RS1/16S393J
	R6732	RS1/16S4301D
	R6664,R6677	RS1/16S471J
	R6635,R6648,R6684,R6725,R6737	RS1/16S472J
	R6740,R6744,R6748	RS1/16S472J
	R6649,R6655,R6657,R6667,R6668	RS1/16S473J
	R6670,R6680,R6683,R6739,R6742	RS1/16S473J
	R6733	RS1/16S5601D
	R6681,R6682	RS1/16S562J

Mark	No.	Description	Part No.
	R6665,R6678		RS1/16S563J
	R6727		RS1/16S7501D
	R6659,R6672		RS1/16S822J
	Other Resistors		RS1/10S□□□J

OTHERS

	CN6605	6P PLUG	AKM9018
	CN6604	KR CONNECTOR	S10B-PH-SM3
	CN6606	CONNECTOR 11P	S11B-ZR-SM3A
	CN6611	PH CONNECTOR	S2B-PH-SM3
	CN6602	PH CONNECTOR	S3B-PH-SM3
	CN6601	PH CONNECTOR	S3B-PH-SM3-E
	CN6608	PH CONNECTOR	S3B-PH-SM3-M
	CN6603	PH CONNECTOR	S3B-PH-SM3-R
	CN6609	CONNECTOR 3P	S3B-ZR-SM3A
	CN6610	CONNECTOR 3P	S3B-ZR-SM3A-R
	CN6607	PH CONNECTOR	S4B-PH-SM3

I DC POWER SUPPLY ASSY

No service parts.

J AC FILTER ASSY

OTHERS

⚠	FU6501	FUSE(6.3A/250V)	AZE9004

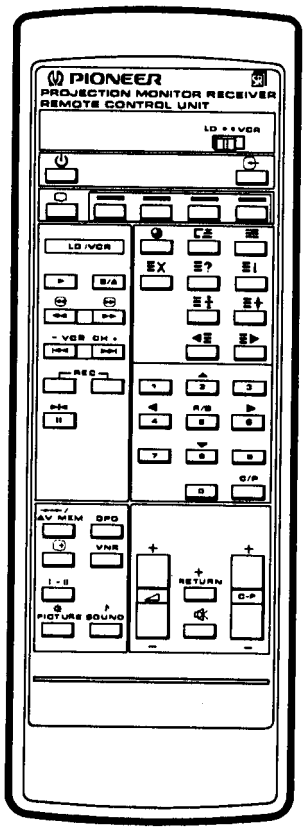
LAMP BALLAST ASSY

No service parts.

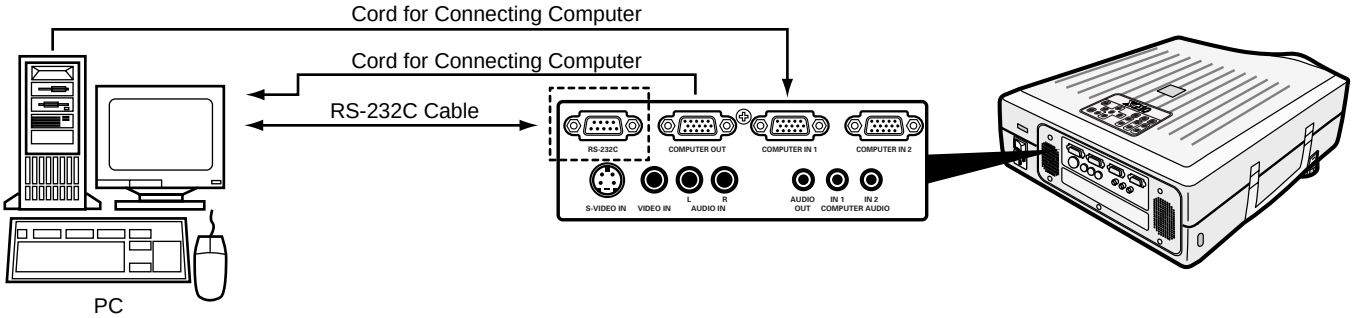
6. ADJUSTMENT

6.1 REQUIRED TOOLS

- **Personal computer:**
  RS-232C port, screen resolution of 1024 × 768 pixels, with 16-bit colors, Windows 95 installed.
  PC Monitor
- **RS-232C cable:**
  Cable supplied with the unit or a D-sub 9-pin straight cable
- **Illuminometer:**
  Minolta T-1 or equivalent
- **Video signal generator:**
  NTSC, PAL or SECAM output
- **Oscilloscope**
- **Dedicated cable:**
  Mini-plug-to-BNC-plug cable for connection between the illuminometer and oscilloscope
- **LD player and laser disc:**
  For checking picture quality (type used with a projection TV)
- **Remote control unit:**
  Type for projection TV servicing
  AXD1369 supplied with the SD-V5070NE, or equivalent Video 1, Video 2 and Video 3 selection keys required.
  Audio selection (main/sub, stereo) key and Factory mode key desirable.
- **Dark room**
  Capable of maintaining darkness below approx. 10 lux.
  As the reference for adjustments, set the focus with the 40-inch zoom wide setting. (The setting needs not be strictly 40 inches. Note that, however, the adjustment may not be easy with a too large picture.)
  In this case, the projection distance is approx. 1.5 m.
- **Screen**
  A simple one may be accepted. (A white wall may be sufficient.)
- **Adjustment software:**
  Dedicated software (for PC)



Remote Control Unit (AXD1369)



Connections

6.2 ADJUSTMENTS METHOD

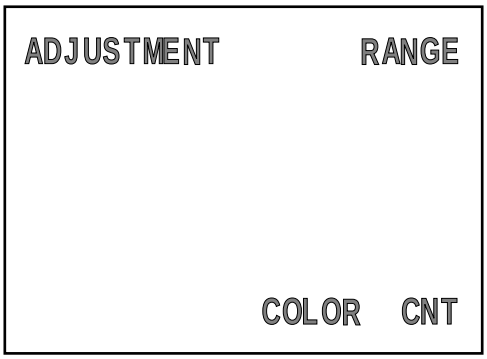
6.2.1 Activating Factory Mode

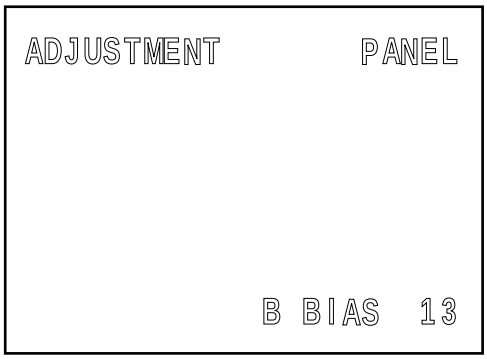
Press the Factory remote control key (code: $AA5F) or S2801 of the MAIN assy.
When the unit enters Factory mode, one of the OSD displays shown in “Display Examples in Factory Mode” appears.
The items to be adjusted in Factory mode and the remote control codes are shown in the table “Factory Adjustment Items.”
Note that Factory mode cannot be activated by RS-232C control.

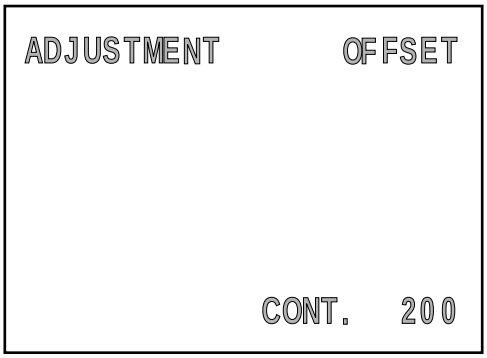
Mode	Item	Contents	Reference Value	
			COMP.	Video
RANGE		To Check the variable range		
OFFSET		Standard adjustments from factory-preset values		
	CONT	To adjust the contrast	138	138
	BRIGHT	To adjust the brightness	0	0
	COLOR	To adjust the color level of the video signal	-	150
	TINT	To adjust the color tint of the video signal (NTSC only)	-	110
	SHARP	To adjust the sharpness of the video signal	-	41
WH BAL		White balance adjustments with high and low lights		
	R SCON	To adjust the red contrast	128	128
	G SCON	To adjust the green contrast	128	90
	B SCON	To adjust the blue contrast	128	103
	R SBRI	To adjust the red brightness	0	0
	G SBRI	To adjust the green brightness	0	0
	B SBRI	To adjust the blue brightness	0	0
PANEL		Panel-related adjustments	No reference values	
	R GAIN	To adjust the red panel gain		
	G GAIN	To adjust the green panel gain		
	B GAIN	To adjust the blue panel gain		
	R BIAS	To adjust the red panel bias		
	G BIAS	To adjust the green panel bias		
	B BIAS	To adjust the blue panel bias		
	R ITO	To adjust the red ITO voltage		
	G ITO	To adjust the green ITO voltage		
	B ITO	To adjust the blue ITO voltage		
CONVER		Panel-timing adjustment items		
	RED H	To adjust the red horizontal static convergence	0	
	GREEN H	Adjustment disabled		
	BLUE H	To adjust the blue horizontal static convergence	0	
	RED V	To adjust the red vertical static convergence	0	
	GREEN V	Adjustment disabled		
	BLUE V	To adjust the blue vertical static convergence	0	
	R SHDLY	Do not change the setting	3	
	G SHDLY	Do not change the setting	3	
	B SHDLY	Do not change the setting	3	
	H DELAY	Do not change the setting	3	
ADC		A/D level adjustments for the input stage (for Assy adjustment)		
	R CLAMP	Do not change the setting		
	G CLAMP	Do not change the setting		
	B CLAMP	Do not change the setting		
	R REFR	Do not change the setting		
	G REFR	Do not change the setting		
	B REFR	Do not change the setting		
EXT		External control mode		
	Serial	Shows the automatic adjustment serial and the version of the microcomputer.		
	Aging	Long-period aging mode		
	External adjustments	Mode for adjustments using RS-232C		

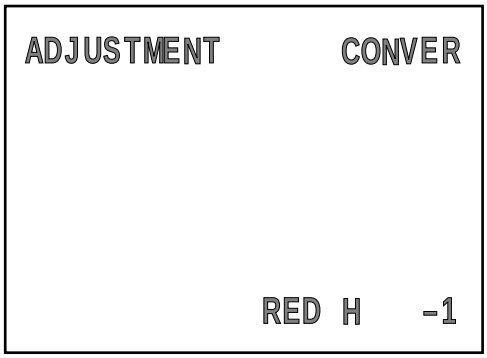
Imprudent changes of the adjustment value of PANEL and ADC may disable readjustment and even cause damage to the panel.
The above items are not to be adjusted while observing the picture.
The adjustments in Factory mode cannot be achieved when no input is being supplied. When performing these adjustments, be sure to supply an appropriate signal.

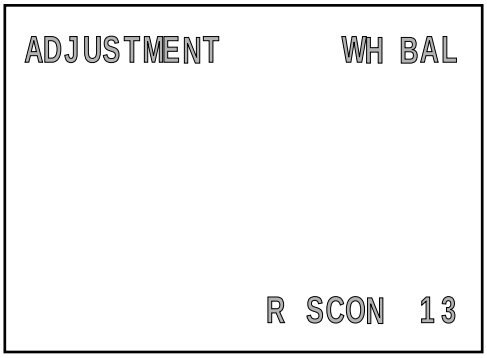
Display Examples Factory Mode

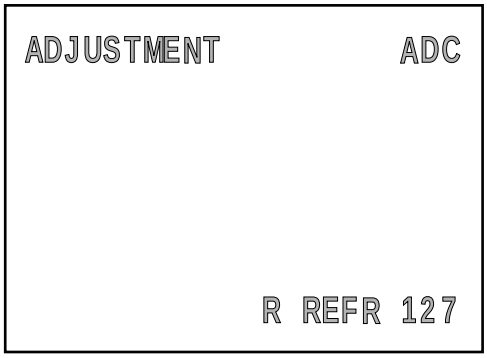


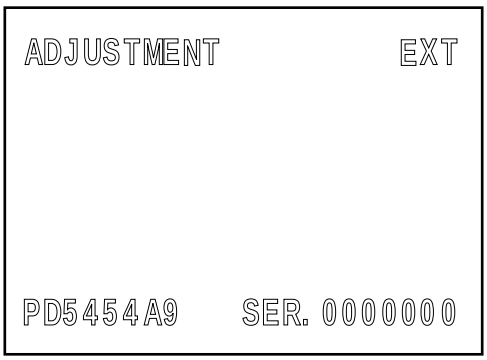


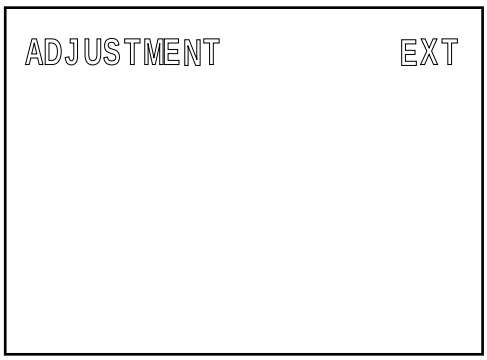












Factory Adjustment Items

Note : The initial values are those before adjusting the assy and main unit. Use the reference values.

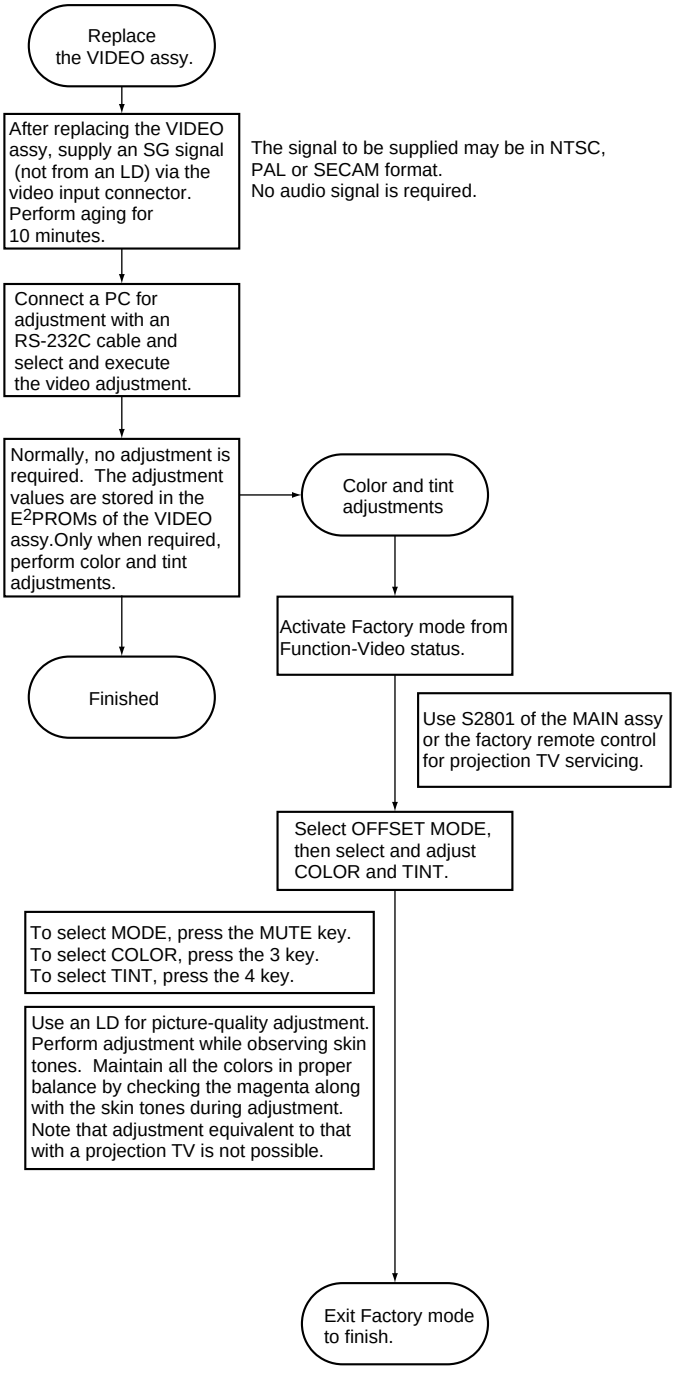
Mode	Contents	Adjustment range	Early value		Remote Control Key		Remarks
			VIDEO	COMP	Contents	Mode	
RANGE	CONT	CNT → MIN → MAX			1	MENU ($AA8B)	
	BRIGHT	CNT → MIN → MAX			2		
	COLOR	CNT → MIN → MAX		— —	3		
	TINT	CNT → MIN → MAX		— —	4		
	SHARP	CNT → MIN → MAX		— —	5		
					6		
	VOL10	VOLUME 10			7		
	VOL20	VOLUME 20			8		
	VOL30	VOLUME 30			9		
	ACL CHECK	CONT : MAX	BRIGHT : CNT ←→ MIN		0		
OFFSET	CONT	0 to 255	138	138	1	($AA96)	
	BRIGHT	–128 to 127	0	0	2		
	COLOR	0 to 255	150	— —	3		
	TINT	0 to 255	128	— —	4		
	SHARP	0 to 60	46	— —	5		
WH BAL	R SCON	0 to 255	128	128	1	($AA94)	
	G SCON		90		2		
	B SCON		93		3		
	R SBRI	–128 to 127	0	0	4		
	G SBRI				5		
	B SBRI				6		
PANEL	R GAIN	0 to 255	127		1	($AA97)	
	G GAIN				2		
	B GAIN				3		
	R BIAS				4		
	G BIAS				5		
	B BIAS				6		
	R ITO				7		
	G ITO				8		
	B ITO				9		
CONVER	RED H	–7 to 7	0		1	SET ($AA8A)	
	GREEN H	— —	— —		2		
	BLUE H	–7 to 7	0		3		
	RED V	–3 to 3	0		4		
	GREEN V	— —	— —		5		
	BLUE V	–3 to 3	0		6		
	R SHDLY	0 to 7	3		7		
	G SHDLY				8		
	B SHDLY				9		
	H DELAY				0		
ADC	R CLAMP	0 to 255	135		1	($AA95)	
	G CLAMP				2		
	B CLAMP				3		
	R REFR		127		4		
	G REFR				5		
	B REFR				6		
EXT	Serial mode				1	Double audio ($AA1E)	
	Aging mode				2		
	External adjustment mode				3		

Common remote control codes

Function	Remote control key	Function	Remote control key	Function	Remote control key
Value UP	Volume + ($AA0A)	Display ON/OFF	Display call ($AA4A)	Adjustment mode selection	Audio mute ($AA49)
Value UP	ADJ + ($AA41)	R MUTE ON/OFF	Video 1 ($AA0F)	Adjustment item selection	Picture quality ($AA40)
Value DOWN	Volume - ($AA0B)	G MUTE ON/OFF	Video 2 ($AA0E)	INPUT VIDEO	BS9 ($AA51)
Value DOWN	ADJ - ($AA42)	B MUTE ON/OFF	Video 3 ($AA56)	INPUT COMP.1	BS11 ($AA52)
Value 10UP	CH + ($AA10)	ALL MUTE ON	LD ($AA0D)	INPUT COMP.2	BS13 ($AA53)
Value 10DOWN	CH - ($AA11)	ALL MUTE OFF	BS15 ($AA54)		

■ Adjustment methods after assy replacement

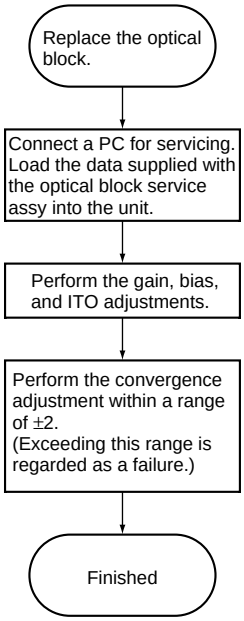
VIDEO ASSY


Replace the VIDEO assy.
After replacing the VIDEO assy, supply an SG signal (not from an LD) via the video input connector. Perform aging for 10 minutes.
The signal to be supplied may be in NTSC, PAL or SECAM format. No audio signal is required.
Connect a PC for adjustment with an RS-232C cable and select and execute the video adjustment.
Normally, no adjustment is required. The adjustment values are stored in the E2PROMs of the VIDEO assy.Only when required, perform color and tint adjustments.
Color and tint adjustments
Finished
Activate Factory mode from Function-Video status.
Use S2801 of the MAIN assy or the factory remote control for projection TV servicing.
Select OFFSET MODE, then select and adjust COLOR and TINT.
To select MODE, press the MUTE key.
To select COLOR, press the 3 key.
To select TINT, press the 4 key.
Use an LD for picture-quality adjustment. Perform adjustment while observing skin tones. Maintain all the colors in proper balance by checking the magenta along with the skin tones during adjustment. Note that adjustment equivalent to that with a projection TV is not possible.
Exit Factory mode to finish.

＊: The basic operation methods in Factory mode are the same as those for a projection TV.

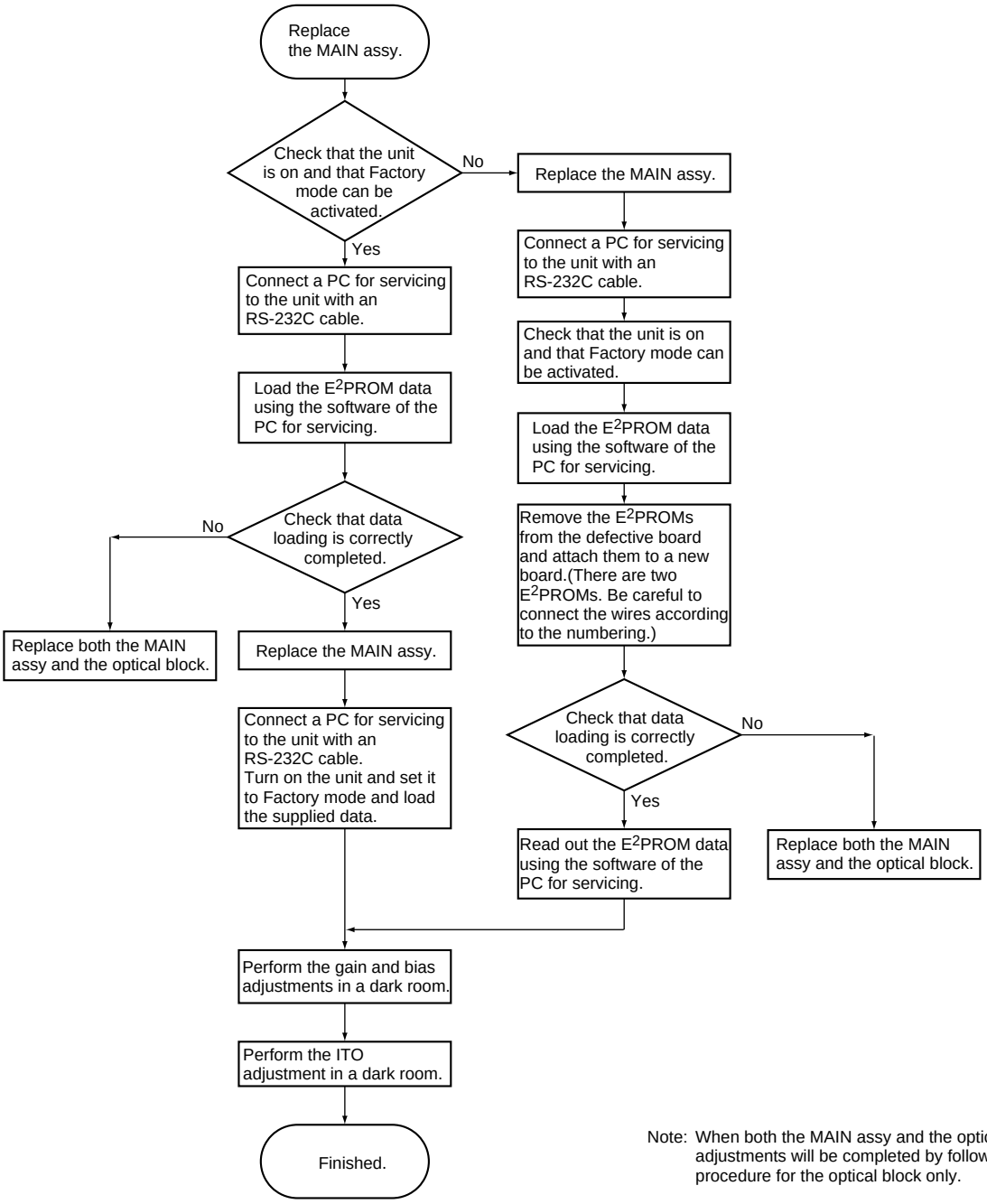
OPTICAL BLOCK

Use an attached floppy disk for OPTICAL BLOCK SERVICE assy, and make this adjustment when OPTICAL BLOCK SERVICE assy (AXX9010) is exchanged.


Replace the optical block.
Connect a PC for servicing. Load the data supplied with the optical block service assy into the unit.
Send the panel gamma, CRT gamma, gain, and ITO panel color-dot data.
Perform the gain, bias, and ITO adjustments.
Perform the convergence adjustment within a range of ±2. (Exceeding this range is regarded as a failure.)
Finished

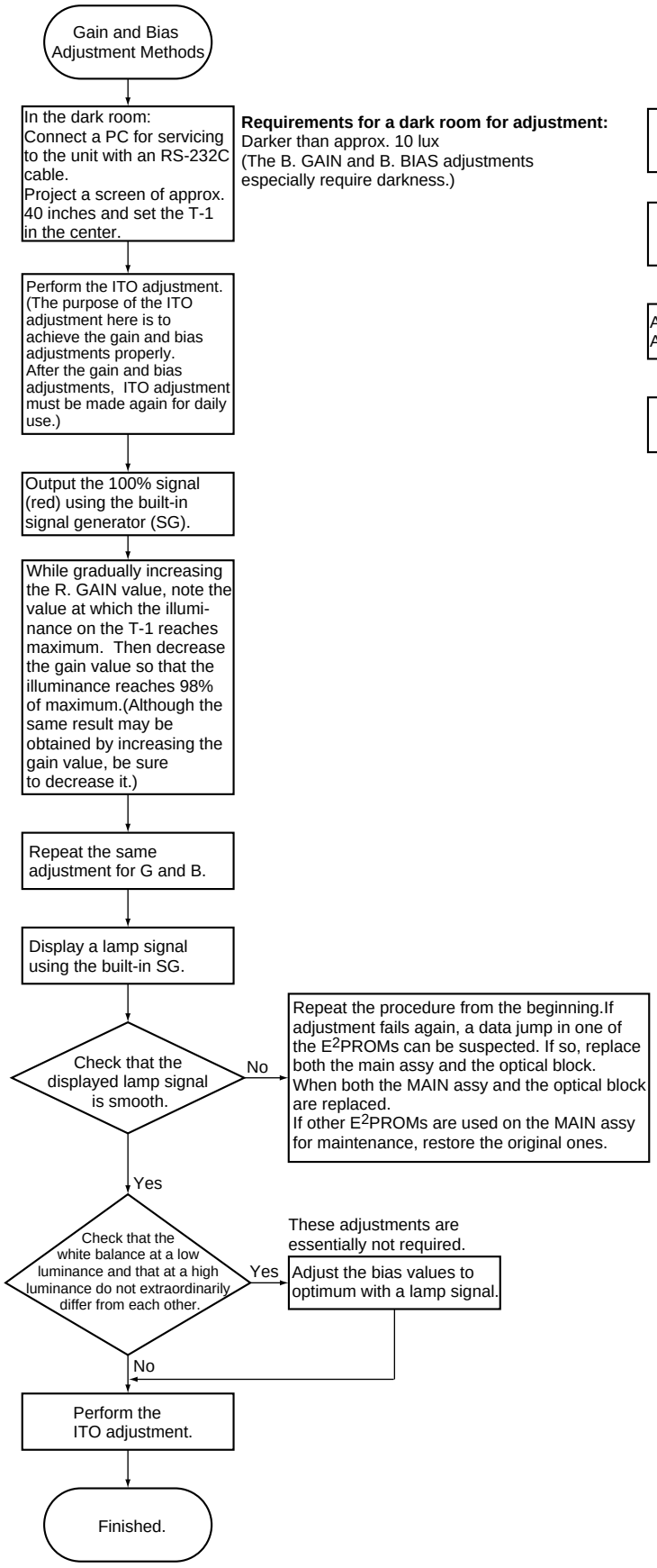
＊: When the optical block and MAIN assy are supplied in combination as a single service part, no adjustment is required.

MAIN ASSY

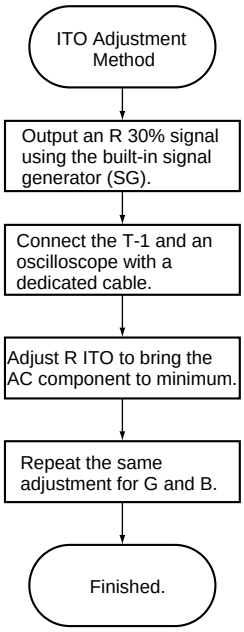

Replace the MAIN assy.
Check that the unit is on and that Factory mode can be activated.
No
Yes
Replace the MAIN assy.
Connect a PC for servicing to the unit with an RS-232C cable.
Check that the unit is on and that Factory mode can be activated.
Load the E2PROM data using the software of the PC for servicing.
Remove the E2PROMs from the defective board and attach them to a new board.(There are two E2PROMs. Be careful to connect the wires according to the numbering.)
Connect a PC for servicing to the unit with an RS-232C cable.
Load the E2PROM data using the software of the PC for servicing.
Check that data loading is correctly completed.
No
Yes
Replace both the MAIN assy and the optical block.
Replace the MAIN assy.
Connect a PC for servicing to the unit with an RS-232C cable.
Turn on the unit and set it to Factory mode and load the supplied data.
Check that data loading is correctly completed.
No
Yes
Read out the E2PROM data using the software of the PC for servicing.
Replace both the MAIN assy and the optical block.
Perform the gain and bias adjustments in a dark room.
Perform the ITO adjustment in a dark room.
Finished.

Note: When both the MAIN assy and the optical block are replaced, adjustments will be completed by following the adjustment procedure for the optical block only.

Gain and Bias Adjustment Methods

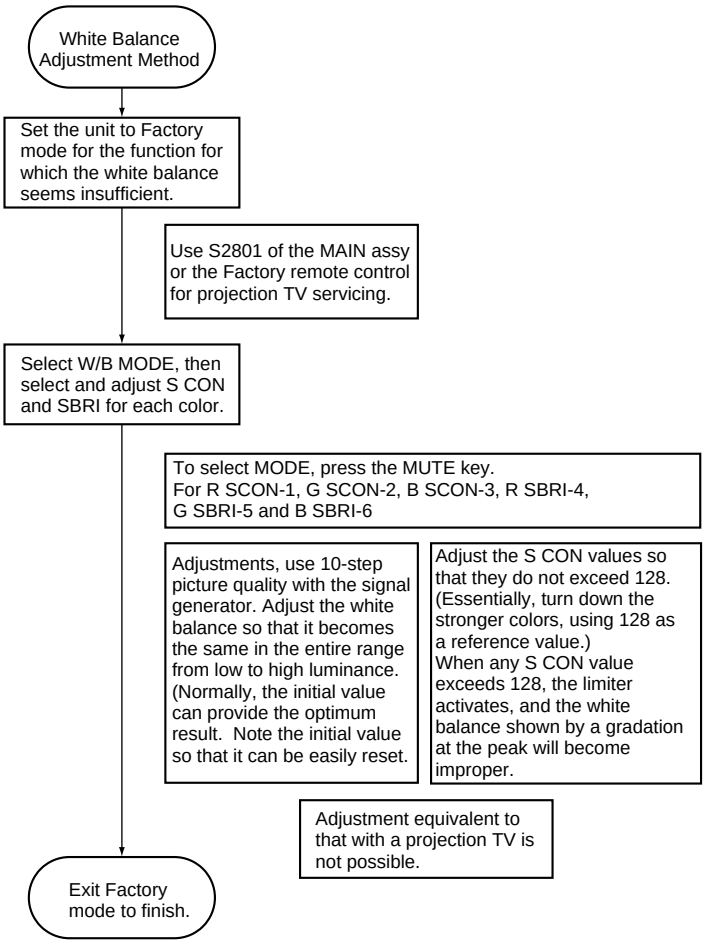

Gain and Bias Adjustment Methods
In the dark room:
Connect a PC for servicing to the unit with an RS-232C cable.
Project a screen of approx. 40 inches and set the T-1 in the center.
Requirements for a dark room for adjustment:
Darker than approx. 10 lux
(The B. GAIN and B. BIAS adjustments especially require darkness.)
Perform the ITO adjustment. (The purpose of the ITO adjustment here is to achieve the gain and bias adjustments properly. After the gain and bias adjustments, ITO adjustment must be made again for daily use.)
Output the 100% signal (red) using the built-in signal generator (SG).
While gradually increasing the R. GAIN value, note the value at which the illumi-nance on the T-1 reaches maximum. Then decrease the gain value so that the illuminance reaches 98% of maximum.(Although the same result may be obtained by increasing the gain value, be sure to decrease it.)
Repeat the same adjustment for G and B.
Display a lamp signal using the built-in SG.
Check that the displayed lamp signal is smooth.
No
Repeat the procedure from the beginning.If adjustment fails again, a data jump in one of the E2PROMs can be suspected. If so, replace both the main assy and the optical block. When both the MAIN assy and the optical block are replaced. If other E2PROMs are used on the MAIN assy for maintenance, restore the original ones.
Yes
Check that the white balance at a low luminance and that at a high luminance do not extraordinarily differ from each other.
These adjustments are essentially not required.
Yes
Adjust the bias values to optimum with a lamp signal.
No
Perform the ITO adjustment.
Finished.

ITO Adjustment Methods


ITO Adjustment Method
Output an R 30% signal using the built-in signal generator (SG).
Connect the T-1 and an oscilloscope with a dedicated cable.
Adjust R ITO to bring the AC component to minimum.
Repeat the same adjustment for G and B.
Finished.

White Balance Adjustment Method

Perform the adjustment if the white balance is apparently insufficient.
Note that the total performance will be always degraded because of this adjustment.


White Balance Adjustment Method
Set the unit to Factory mode for the function for which the white balance seems insufficient.
Use S2801 of the MAIN assy or the Factory remote control for projection TV servicing.
Select W/B MODE, then select and adjust S CON and SBRI for each color.
To select MODE, press the MUTE key.
For R SCON-1, G SCON-2, B SCON-3, R SBRI-4,
G SBRI-5 and B SBRI-6
Adjustments, use 10-step picture quality with the signal generator. Adjust the white balance so that it becomes the same in the entire range from low to high luminance. (Normally, the initial value can provide the optimum result. Note the initial value so that it can be easily reset.
Adjust the S CON values so that they do not exceed 128. (Essentially, turn down the stronger colors, using 128 as a reference value.)
When any S CON value exceeds 128, the limiter activates, and the white balance shown by a gradation at the peak will become improper.
Adjustment equivalent to that with a projection TV is not possible.
Exit Factory mode to finish.

As for SCON and SBRI, they can have three types of memory data, COMP (1,2), VIDEO, and VIVID that has data relative to the COMP value.
These data are independent to each other, and VIDEO can be adjusted without affecting COMP. Perform the adjustments independently.
For the VIVID adjustment, see "6.3 Integrator Mode." If the user wants to change the white balance even when the total balance is sufficient, it is recommended to adjust it in VIVID mode.

6.3 INTEGRATOR MODE

Integrator mode has the following two functions.

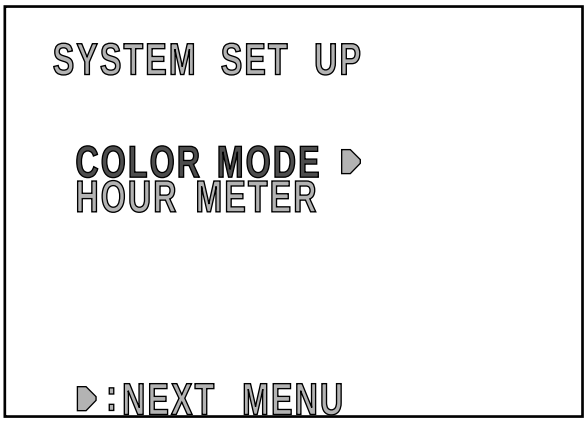
1. Setting picture quality when [VIVID] is selected for [COLOR MODE].
2. [ODD] and [LAMP LIFE] time display

Activating Integrator Mode

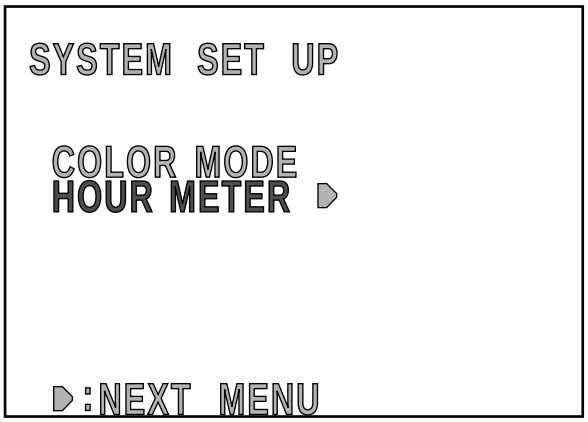
1. Hold the [SET] key pressed in Standby status (main power ON and the standby LED lit in amber).
2. The standby LED goes dark after approx. 2 seconds (no LED lit).
3. Release the [SET] key, and the standby LED will flash twice (for approx. 2 seconds). While the LED is flashing, press the [STANDBY/ON] key to start up the unit.
4. After the normal STARTING UP process is completed, the initial display of Integrator mode appears.

Note : If no picture appears as described in step 4, once resume Standby status and repeat the above procedure.
If more than two seconds has been elapsed before starting up the unit in step 2, repeat the procedure from step 1.

● Initial Display of Integrator Mode



If an appropriate signal input is available at COMP1 or COMP2.



If a video signal, no signal or a nonconforming signal is being supplied.

The [COLOR MODE] parameter adjustment menu can be selected only when either the COMP1 or COMP2 input is selected and a proper signal (one that conforms to XG10) is being supplied to the selected input. This is because the unit is designed so that the [COLOR MODE] settings are effective only for picture quality for a signal input via the COMP inputs. Similarity, the menu cannot be selected if no appropriate signal is being supplied, as these adjustments must be made while observing changes in the picture quality.

For the menu operations, use the menu keys.
Key functions in Integrator mode

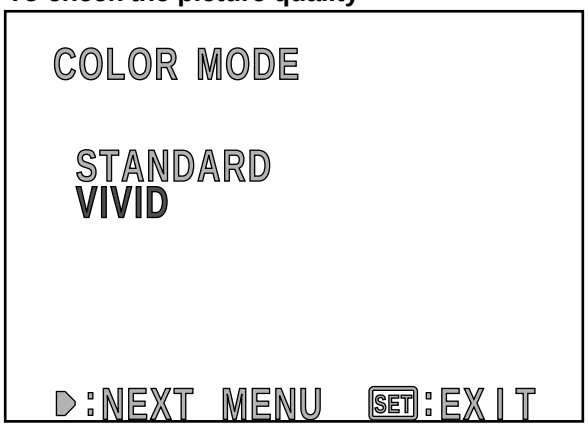
[MENU]: Terminates Integrator mode.
[SET]: Returns you to the previous layer.
Menu Up: Moves the setting and adjustment item selection upward.
Menu Down: Moves the setting and adjustment item selection downward.
Menu Right: Proceeds the menu layer by one, increases the setting value, or selects "NO."
Menu Left: Decreases the setting value, or selects "YES."

6.3.1 Setting Picture Quality when [VIVID] is Selected for [COLOR MODE]

You can set the picture quality when [VIVID] is selected for the menu item [COLOR MODE]. In this adjustment mode, you may select a picture quality for repeated recording.

To select the menu, press the Right key with [COLOR MODE] highlighted on the initial display of Integrator mode.

To check the picture quality

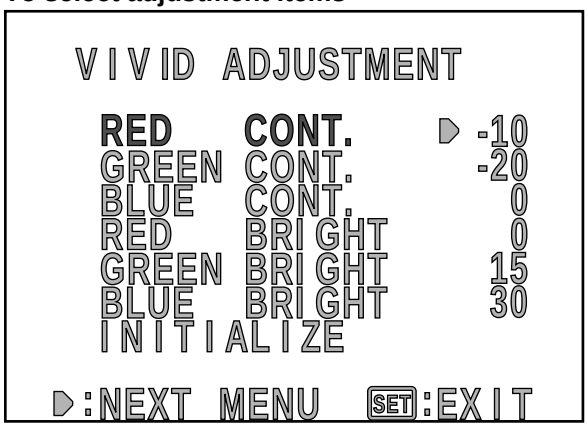


Check the picture quality by switching between [STANDARD] and [VIVID] with UP or Down key.
Only when [VIVID] is selected, the shift to/from the display shown at right is possible.

Right key →

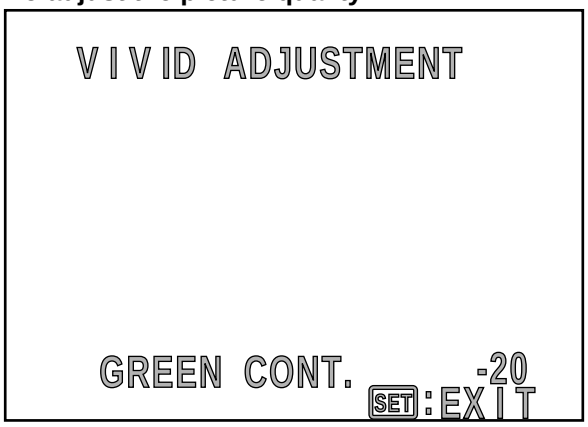
[SET] key ←

To select adjustment items



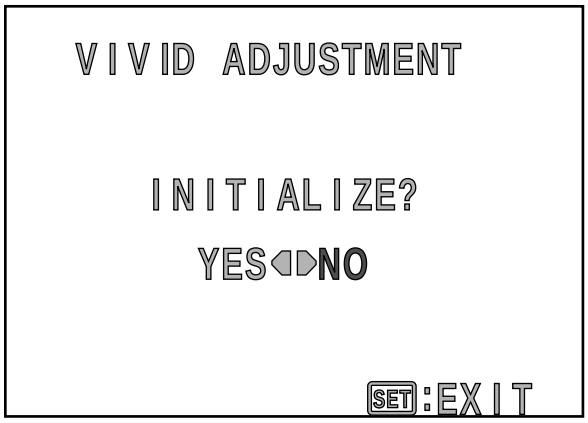
Select the item to be adjusted.
With an item other than [INITIALIZE] selected, pressing the Right key calls the display shown at lower left.

To adjust the picture quality



Adjust the parameters.
Press the Right or Left key to change the value.
Return to the display shown at top right with [SET] key.

To initialize



Resume the factory settings for [VIVID].
Select using the Right or Left key and register the selection with the [SET] key, returning to the display shown above.
• Initial value

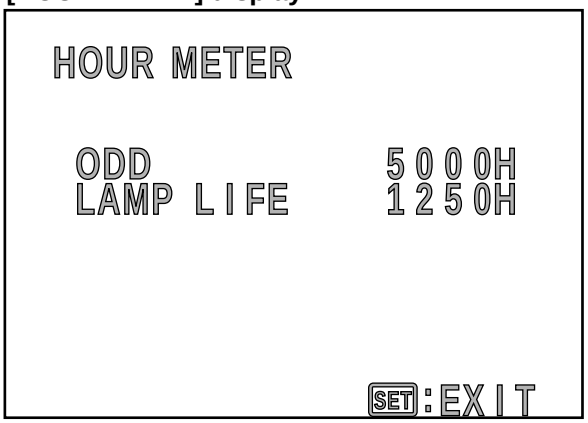
RED CONT.	: 0
GREEN CONT.	: -14
BLUE CONT.	: -14
RED BRIGHT	: 0
GREEN BRIGHT	: 0
BLUE BRIGHT	: 0

6.3.2 [ODD] and [LAMP LIFE] time display

The accumulated time the unit has had the power on and accumulated lamp usage can be displayed.

To select the menu, press the Right key with [HOUR METER] highlighted on the initial display of Integrator mode.

[HOUR METER] display



The [ODD] value shows the accumulated time the unit has had the power on (reset is not possible).
The [LAMP LIFE] value shows the accumulated time since it was reset the Lamp Life menu after the lamp was replaced.
Even upon the initial use, these two values may differ. This occurs when an examination has been made at the factory with a lamp for inspection attached. In such a case, the [ODD] value is larger the [LAMP LIFE] value.

■ Restarting Integrator Mode

If the unit is started from Standby status with the improper input setting, the setting must be changed.
Restart the unit after changing the input setting as follows.

1. Press the [MENU] key to terminate Integrator mode.
2. Select the input to be used.
3. Hold the [SET] key pressed for more than 2 seconds.
   →Integrator mode is activated.

When the unit is started up in Integrator mode, you can deactivate/activate the mode by the operation in step 3 any time before you turn off the unit. Once the unit has been turned off, repeat the procedure described in "Activating Integrator Mode."

* The keys, such as [MENU] and [SET], mentioned in the text can be either those of the remote control or of the unit.

■ RS-232C commands

When the unit is started up in Integrator mode, the following RS-232C commands become effective by sending the [AJY] command in a condition other than the [STARTING UP] process until the unit is turned off.

Command	Function	
GIT	Outputs the values of the [VIVID] mode setting, [ODD] and [LAMP LIFE] via the RS-232C.	
IRC ± dd	Adjust [RED CONT.] with [VIVID] selected.	± dd = adjustable range -32 to +31
IGC ± dd	Adjust [GREEN CONT.] with [VIVID] selected.	± dd = adjustable range -32 to +31
IBC ± dd	Adjust [BLUE CONT.] with [VIVID] selected.	± dd = adjustable range -32 to +31
IRB ± dd	Adjust [RED BRIGHT] with [VIVID] selected.	± dd = adjustable range -32 to +31
IGB ± dd	Adjust [GREEN BRIGHT] with [VIVID] selected.	± dd = adjustable range -32 to +31
IBB ± dd	Adjust [BLUE BRIGHT] with [VIVID] selected.	± dd = adjustable range -32 to +31
CLMRST	Returns the above parameters to the factory-set values.	

After adjusting with the above commands, terminate RS-232C Adjustment mode using the [AJN] command.

[AJY] Enables adjustment via the RS-232C. When the [MENU] key on the remote controller or on the unit is pressed, the adjustments made the RS-232C are forcibly disabled, and the OSD menu of the unit appears.
[AJN] Terminates the adjustments made via the RS-232C.

6.4 SPECIFICATIONS OF RS-232C

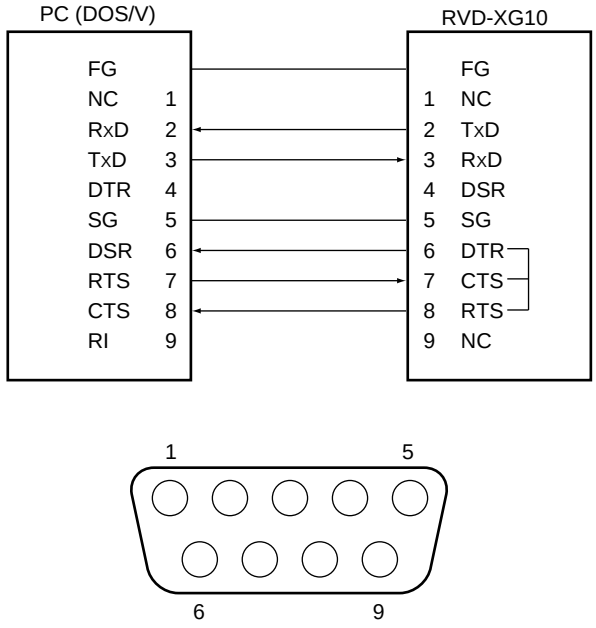
6.4.1 Hardware specifications

It is based on RS-232C.

Baud rate : 9600
Bit rate : 7
Parity : NON
Stop bit : 1

6.4.2 Connection

Connect with the external computer by 9-pin D-SUB straight cable.
Connection is as follows:



Note: Because of such wiring configuration, the connector is always in the state to accept a command. Do not send more than 255 bytes of data to the built-in buffer until processing is completed.
If more than 255 bytes are sent, any commands contained in the excess data are ignored.

6.4.3 Character Codes

CR	0Dh
ACK	06h
BS	08h
LF	0Ah
NAK	15h

Note:
An echo is returned, but not LF.
ACK is returned after a command is executed.
NAK is returned for a command error or buffer overflow.
BS is not valid.
Even when a value is returned in response to a command, LF is not returned.

6.4.4 Command Input Method

① Number direct input (absolute value input)

Examples: BRT15 (CR), BRT-12 (CR), BRT+15 (CR), BRT0 (CR), BRT+0(CR), BRT-0 (CR)
For a positive number, the plus sign may be omitted.
Be careful that if a space is entered between a command and the plus sign, such as BRT +15 (CR), it does not work.
If the value exceeds the specified value, such as BRT+50 (CR), it also does not work.

② +/– inputs (relative value input)

BRT+(CR), BRT-(CR)
BRT++(CR), BRT+-(CR), BRT+(CR) are not work.

6.4.5 Normal command (An always effective thing and admit it to all the users at the power ON and the standby ON)

Command	Function
AKa	ON/OFF the acknowledge indication of RS-232C (a=y:Indication, N:Non-indication)
	(It has been effective from AKY/AKN inputted, return ACK always.)
EOa	ON/OFF the echo back indication of RS-232C (a=N:Indication, F:Non-indication)
	(It has been effective after returned the ACK of EON/EOF, return ACK always.)
MSa	ON/OFF the message indication of RS-232C (a=Y:Indication, N:Non-indication)
	(It has been effective after returned the ACK of MSY/MSN, return ACK always.)
PON	Turn the power of RVD-XG10 ON. (only at the standby ON)

6.4.6 Normal command (A thing that there are no relations in the menu and to move.)

Command	Function
AJN	Release the adjustment mode (It moves at AJY only).
AJY	Enter the adjustment mode (MENU is end in this state. Release it with the MENU key and FACTORY key.)
FUP	Focus up (ACK is always returned in the AKY state.)
FDW	Focus down (ACK is always returned in the AKY state.)
GST	Output each status from RS-232C (Refer to the indication example.)
POF	Turn the power of RVD-XG10 OFF.
ZUP	Zoom up (ACK is always returned in the AKY state.)
ZDW	Zoom down (ACK is always returned in the AKY state.)

6.4.7 Normal command (A thing to move only at the power ON and MENU OFF.)

Command	Function
AOF	Mute the Audio
AON	Release the Audio Mute
ATS	Auto setup
INa	Input switch (a=V: VIDEO, 1: COMP1, 2: COMP2) → ACK is always returned in the AKY state or NAK when there is no VIDEO.
SZa	Resize (a=E:EXPAND, T:TRUE)
VOLdd	Adjust the Volume position (dd=Adjustment value 0 to 60, +60)
VOF	Mute the Video
VON	Release the Video mute
DZaa	Digital zoom
	(aa=MU:expansion, MD:reduction, on the pickup position, :PD:lower position, PL:left position, PR:right position, ON:on, OFF:off)

6.4.8 Normal command (A thing to move only at the power ON and AJY.)

Command	Function
GPP	Outputs the adjustment value of PICTURE PARAMETER from the RS-232C (Refer to the indication example.)
CNT-dd	Adjust the value of Contrast (-dd=Adjustment value -51 to 0)
BRT±dd	Adjust the value of Brightness (±dd=Adjustment value -25 to +25)
COL±dd	Adjust the value of Color (±dd=Adjustment value -25 to +25)
TNT±dd	Adjust the value of Tint (±dd=Adjustment value -25 to +25)
SHP±dd	Adjust the value of Sharpness (±dd=Adjustment value -25 to +25)
VSa	Switch the video system (a=A:AUTO, P:PAL, S:SECAM, 3:3.58NTSC, 4:4.43NTSC, M:M PAL, N:N PAL)
CLMa	Switch the COLOR MODE adjustment (a=S:STANDARD, V:VIVID)
FRQ+dddd	Fine adjust the value of sample clock frequency (+dddd=Adjustment value +264 to +4104)
PHS+dd	Fine adjust the value of sample clock phase (+dd=Adjustment value 0 to +19)
PSa	Adjust the position of horizontal and vertical directions (a=L, R, U and D)
PPMRST	Clear the PICTURE PARAMETER
GAD	Outputs the adjustment value of mode setting from the RS-232C (Refer to the indication display)
OTa	Select the computer outputs (a=L:LINK, 1:COMP1, 2:COMP2, X:CROSS)
AIa	Adjust the Audio input (a=L:LINK, V:VIDEO, 1:COMP1, 2:COMP2)
BGd	Change the Back Ground color (d=0:Black, 1:Blue)
DSPa	ON/OFF the DISPLAY FUNCTION (INPUT indication, etc.) (a=Y:Indication, N:Non-indication)
RPa	Chenge the screen display direction (a=H:Horizontal, V:Vertical, F:Horizontal and Vertical, N:NORMAL)
LGa	Change the language (a=E:English, D:Deutsch, F:French, I:Italian, S:Spanish, J:Japanese)
Caa	Convergence adjustment (a=R, B, a=L, R, U and D)
LMPRST	The Lamp life meter initialize
TITRST	Total initialize

6.4.9 Factory command (Effective only for adjustments in modes other than Factory)

Command	Function
ROF	Turn OFF the Red panel.
RON	Turn ON the Red panel.
GOF	Turn OFF the Green panel.
GON	Turn ON the Green panel.
BOF	Turn OFF the Blue panel.
BON	Turn ON the Blue panel.
Khh	The control which is the same as the remote control key. It cannot be used simultaneously with the remote control unit. (hh=The rightmost two digits of the SR code of remote control unit. ex. adjustment + $AA0A→K0A)
KWhh	The control which is the same as the double code of remote control key. (ex. Jump to integrator mode &AAD3 + $AF23→KW23)
&DLd	Change the H Delay (d=0 to 7)
&CL+ddd	FACTORY OFFSET COLOR adjustment (ddd=0 to 255)
&TN+ddd	FACTORY OFFSET TINT adjustment (ddd=0 to 255)
&SH+dd	FACTORY OFFSET SHARPNESS adjustment (dd=0 to 60)
&Ia+ddd	FACTORY ITO voltage adjustment (a=R, G, B, ddd=0 to 255)
&Ga+ddd	FACTORY GAIN adjustment (a=R, G, B, ddd=0 to 255)
&Ba+ddd	FACTORY BIAS adjustment (a=R, G, B, ddd=0 to 255)
&Ca+ddd	FACTORY SUB CONTRAST adjustment (a=R, G, B, ddd=0 to 255)
&Ha±ddd	FACTORY SUB BRIGHTNESS adjustment (a=R, G, B, ±ddd=-128 to +127)

Note: K and KW can be used in Factory mode.

6.4.10 Indication example

The information which can get it with GST [CR].

When the power is OFF

POWER OFF [CR]

When the power is ON

Example:at VIDEO

Ver.1.00A [CR]
ID:00[CR]
INV:SIN/NTS [CR]
AOF/VON [CR]
MENU [CR]
VOL: 8 [CR]
DMG [CR]

Example:at COMPUTER

Ver.1.00A [CR]
ID:00 [CR]
IN2: 1024∗768 15KHZ 60HZ/SZTO/DZONO [CR]
AOF/VON [CR]
MENU [CR]
VOL: 8 [CR]
DMG [CR]

Explanation

Ver.1.00A [CR] → Version information
ID:00 [CR] → ID number
INV:SIN/NTS [CR] → Input state

When input is the VIDEO

INV:SIN/NTS [CR]

- The present signal mode (NTS:NTSC, PAL:PAL, 443:4.43NTSC, NPL:N PAL, MPL:M PAL, SEC:SECAM, B/W:Black and white)
- Input terminal (SIN:S input, VIN:Composite video input)
- Input (INV:Video input, IN1:Computer 1 input, IN2:Computer 2 input)

When input is the computer (36 characters + [CR])

IN2: 1024*768 15KHZ 60HZ/SZT0/DZON0 [CR]

- The magnifying power of digital zoom (0:Equivalent, 1:1.5 times, 2:Double, 3:Triple, 4:Four times)
- ON/OFF the digital zoom (DZON:ON, DZOF:OFF)
- Resize mode at the compression mode (0:Compression, 1:Upper left, 2:Lower left, 3:Lower light, 4:Upper light, 5:Center)
- Resize state (SZT:True mode, SZE:Magnification/ Compression)
- Vertical frequency (∗∗HZ)
- Horizontal frequency (∗∗KHZ)
- Present signal mode (640∗400, 640∗480, 800∗600, 832∗624, 1024∗768, 1152∗864, 1152∗870, 1280∗1024, 1600∗1200, 1024∗768i, 1280∗1024i, HDTV:Hi-Vision, OUT_RANGE:SYNC OUT OF RANGE)
- Input (INV:Video input, IN1:Computer 1 input, IN2:Computer 2 input)

Mute information

AOF/VON [CR]

AOF :Audio mute on
AON :Audio mute off
VOF :Video mute on
VON :Video mute off

Menu information

MENU [CR]

MENU :Menu
FACT :Factory
AJY :AJY mode
EXT :Factory external adjustment

Volume

VOL: 8 [CR]

VOL : 8

Condition indication

DMG [CR]

SOR :SYNC OUT OF RANGE
INC :INCORRECT SIGNAL
NOS :NO SIGNAL
PRL :PLEASE REPLACE THE LAMP
DMG :THE SET CAN BE DAMAGED
NML :NORMAL

The information which can get it with GPP [CR]

Output example (VIDEO)

PICTURE PARAMETER [CR]
CNT:-␣12 [CR]
BRT:-␣20 [CR]
COL:+␣␣0 [CR]
TNT:+␣␣2 [CR]
SHP:-␣10 [CR]
VSS:AUT [CR] → AUT/PAL/MPL/NPL/SEC/NTS/443

Output example (COMPUTER)

PICTURE PARAMETER
CNT:-␣12 [CR]
BRT:+␣␣9 [CR]
FRQ:1000 [CR]
PHS:+␣␣8 [CR]
CLM:␣STD [CR] → STD/VVD

The information which can get it with GAD [CR]

Output example

ADDITIONAL SET UP [CR]
OUT:LNK [CR] → LNK/CRS/IN1/IN2
AIN:LNK [CR] → LNK/INV/IN1/IN2
BGC:BLK [CR] → BLK/BLU
DSP:OFF [CR] → ON/OFF
REV:HOR [CR] → NOR/VER/HOR/FUL
LNG:ENG [CR] → ENG/JPN/GER/FRA/ITA/SPA

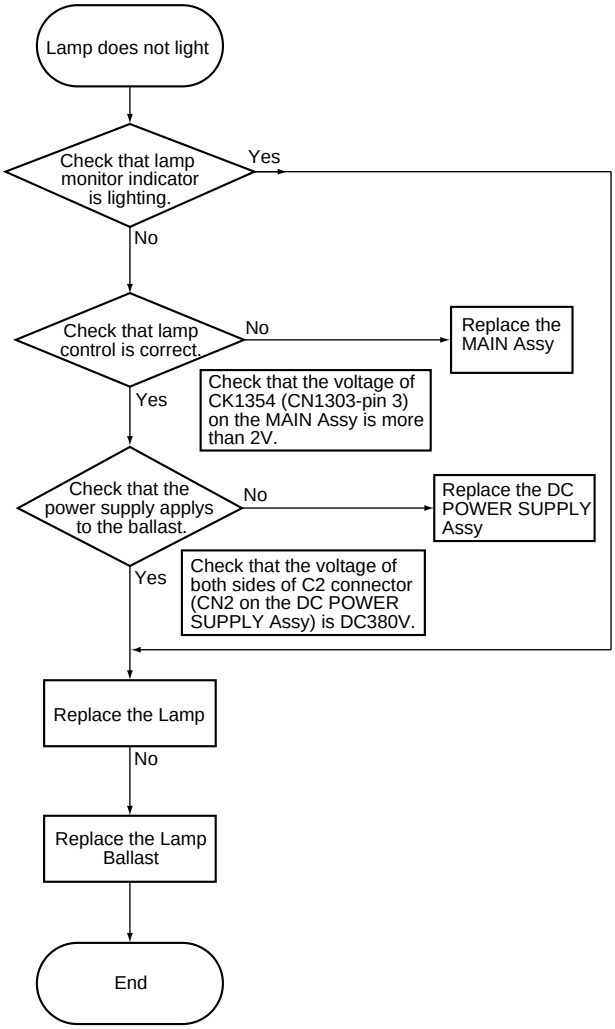
7. GENERAL INFORMATION

7.1 DIAGNOSIS

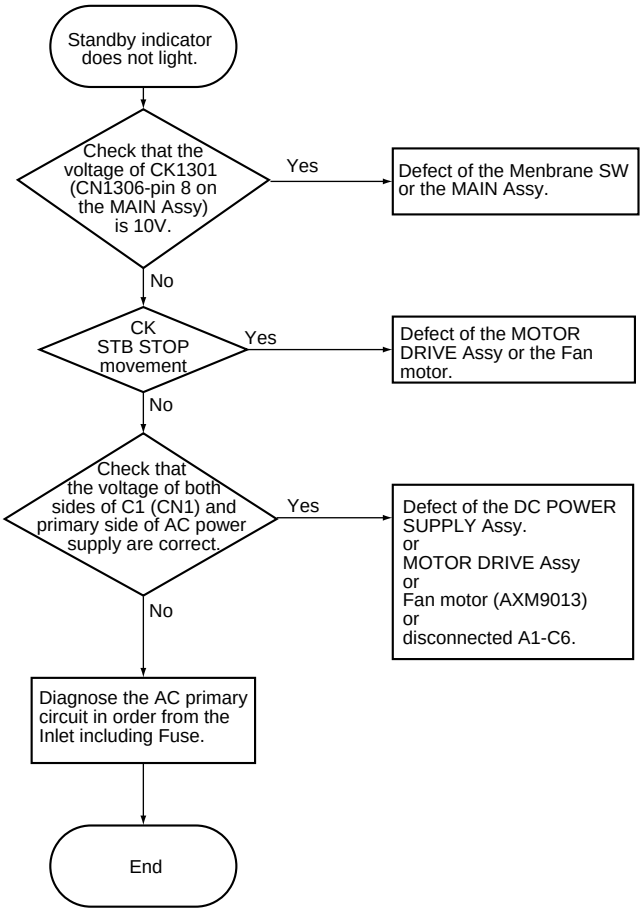
7.1.1 DIAGNOSIS

It may not be repaired by the condition of the trouble and the place by the above judgment. In that case, replace the related other Assy.

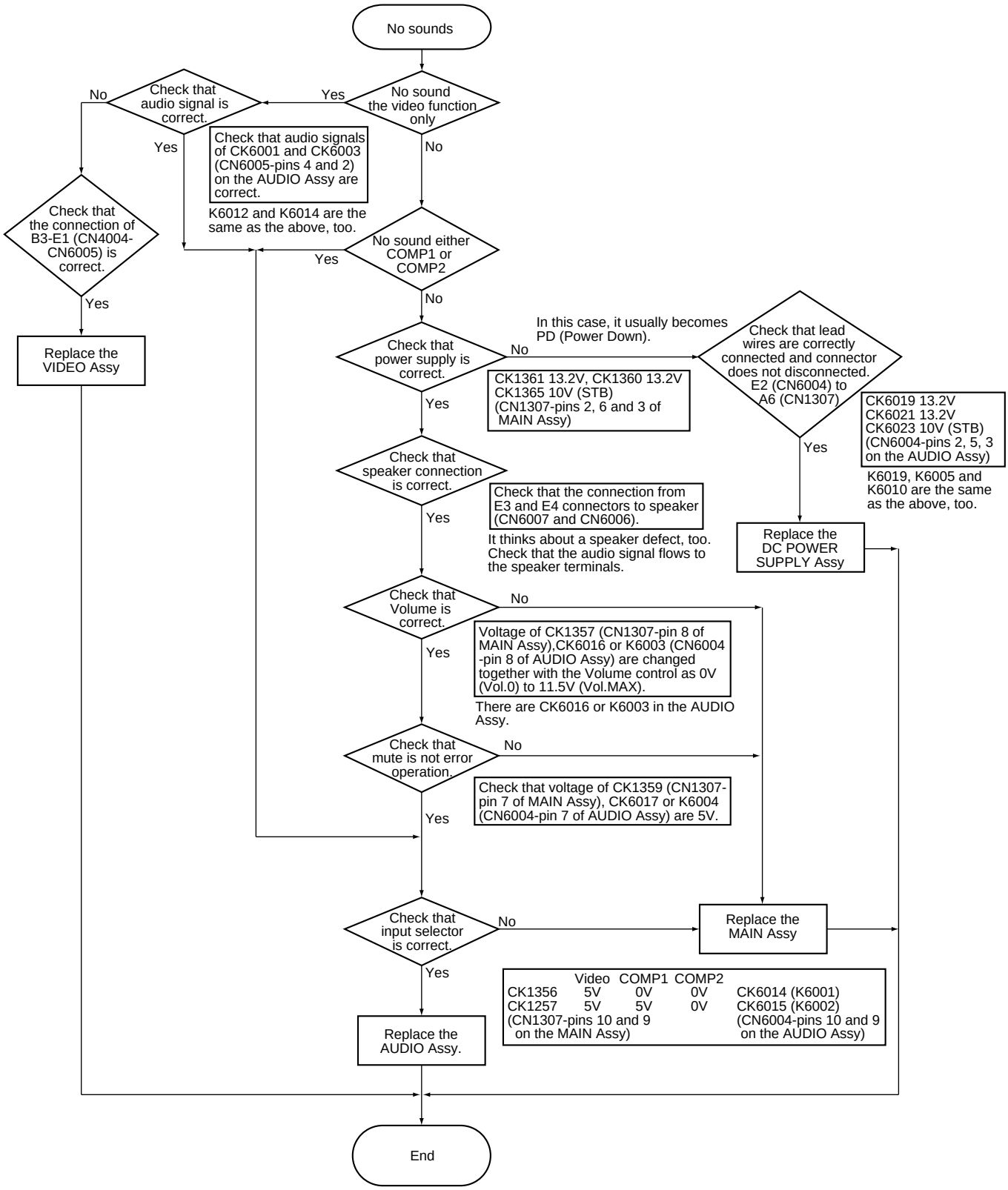
■ **Lamp does not light**


Lamp does not light
Check that lamp monitor indicator is lighting.
Yes
No
Check that lamp control is correct.
No
Replace the MAIN Assy
Check that the voltage of CK1354 (CN1303-pin 3) on the MAIN Assy is more than 2V.
Yes
Check that the power supply applys to the ballast.
No
Replace the DC POWER SUPPLY Assy
Check that the voltage of both sides of C2 connector (CN2 on the DC POWER SUPPLY Assy) is DC380V.
Yes
Replace the Lamp
No
Replace the Lamp Ballast
End

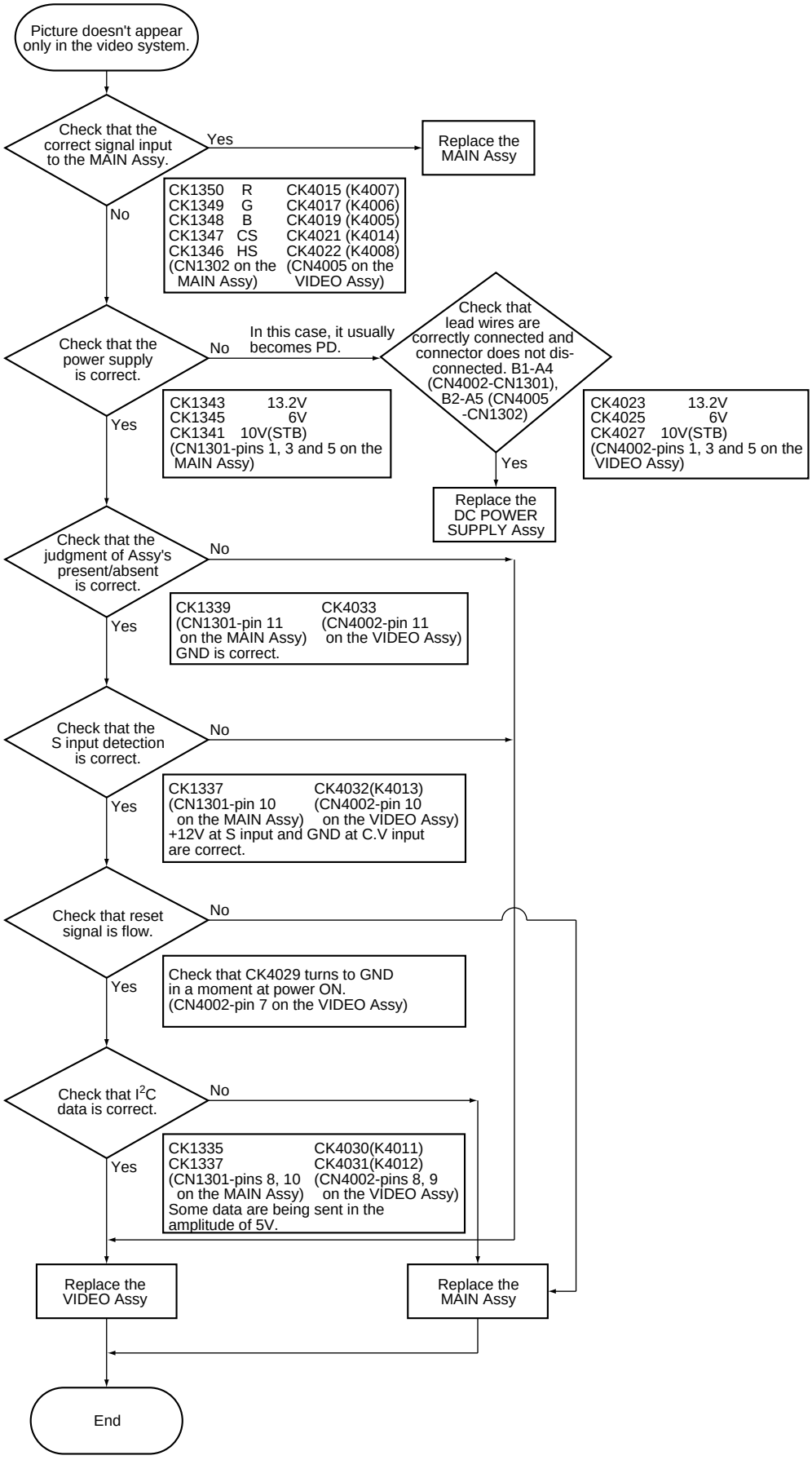
■ **Standby indicator does not light**


Standby indicator does not light.
Check that the voltage of CK1301 (CN1306-pin 8 on the MAIN Assy) is 10V.
Yes
Defect of the Menbrane SW or the MAIN Assy.
No
CK STB STOP movement
Yes
Defect of the MOTOR DRIVE Assy or the Fan motor.
No
Check that the voltage of both sides of C1 (CN1) and primary side of AC power supply are correct.
Yes
Defect of the DC POWER SUPPLY Assy. or MOTOR DRIVE Assy or Fan motor (AXM9013) or disconnected A1-C6.
No
Diagnose the AC primary circuit in order from the Inlet including Fuse.
End

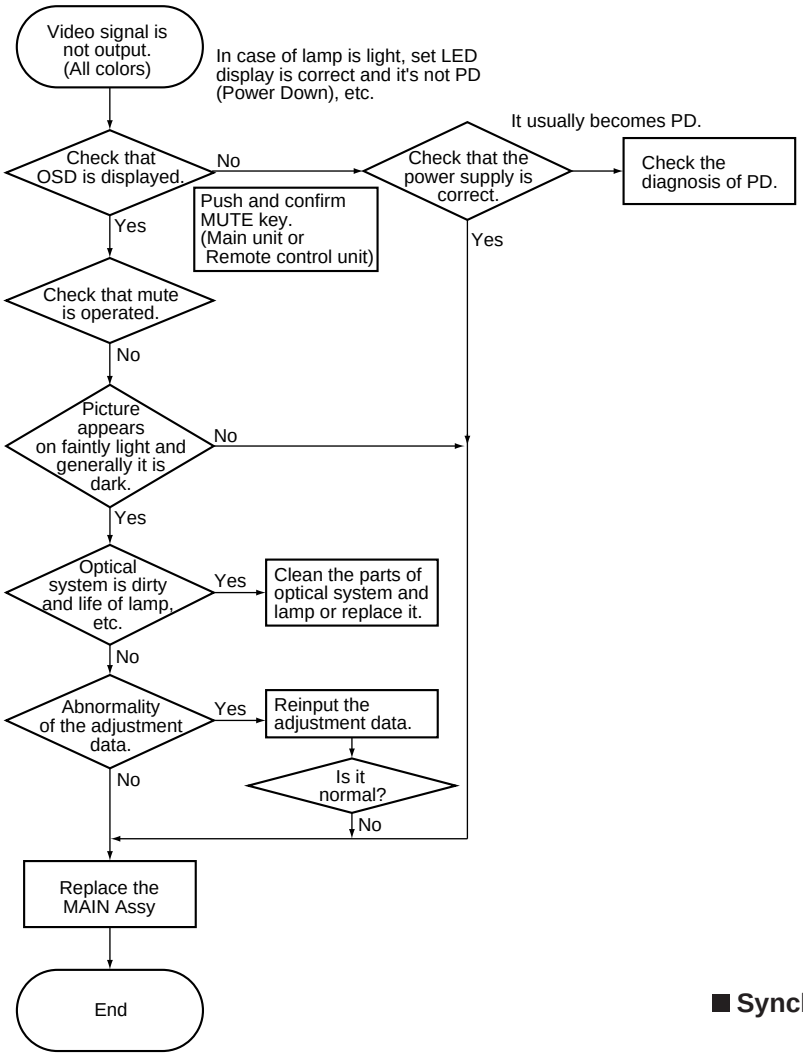
■ No sounds


No sounds
No sound the video function only
Yes
Check that audio signal is correct.
No
Yes
Check that audio signals of CK6001 and CK6003 (CN6005-pins 4 and 2) on the AUDIO Assy are correct.
K6012 and K6014 are the same as the above, too.
No
Check that the connection of B3-E1 (CN4004-CN6005) is correct.
Yes
Replace the VIDEO Assy
No sound either COMP1 or COMP2
Yes
No
Check that power supply is correct.
No
In this case, it usually becomes PD (Power Down).
CK1361 13.2V, CK1360 13.2V
CK1365 10V (STB)
(CN1307-pins 2, 6 and 3 of MAIN Assy)
Check that lead wires are correctly connected and connector does not disconnected. E2 (CN6004) to A6 (CN1307)
Yes
CK6019 13.2V
CK6021 13.2V
CK6023 10V (STB)
(CN6004-pins 2, 5, 3 on the AUDIO Assy)
K6019, K6005 and K6010 are the same as the above, too.
Yes
Check that speaker connection is correct.
Check that the connection from E3 and E4 connectors to speaker (CN6007 and CN6006).
It thinks about a speaker defect, too. Check that the audio signal flows to the speaker terminals.
Yes
Replace the DC POWER SUPPLY Assy
Check that Volume is correct.
No
Voltage of CK1357 (CN1307-pin 8 of MAIN Assy),CK6016 or K6003 (CN6004 -pin 8 of AUDIO Assy) are changed together with the Volume control as 0V (Vol.0) to 11.5V (Vol.MAX).
There are CK6016 or K6003 in the AUDIO Assy.
Yes
Check that mute is not error operation.
No
Check that voltage of CK1359 (CN1307-pin 7 of MAIN Assy), CK6017 or K6004 (CN6004-pin 7 of AUDIO Assy) are 5V.
Yes
Check that input selector is correct.
No
Replace the MAIN Assy
Yes
Video COMP1 COMP2
CK1356 5V 0V 0V CK6014 (K6001)
CK1257 5V 5V 0V CK6015 (K6002)
(CN1307-pins 10 and 9 on the MAIN Assy)
(CN6004-pins 10 and 9 on the AUDIO Assy)
Replace the AUDIO Assy.
End

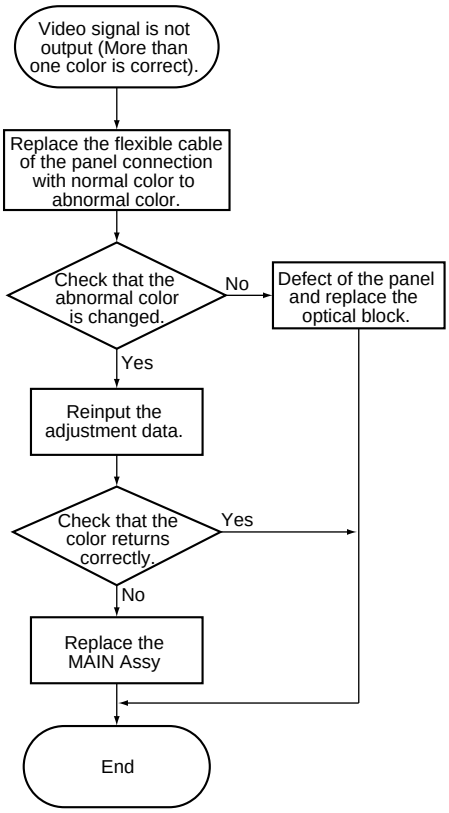
■ Picture doesn't appear only in the video system


Picture doesn't appear only in the video system.
Check that the correct signal input to the MAIN Assy.
Yes
Replace the MAIN Assy
No
CK1350 R CK4015 (K4007)
CK1349 G CK4017 (K4006)
CK1348 B CK4019 (K4005)
CK1347 CS CK4021 (K4014)
CK1346 HS CK4022 (K4008)
(CN1302 on the MAIN Assy) (CN4005 on the VIDEO Assy)
Check that the power supply is correct.
No
In this case, it usually becomes PD.
Check that lead wires are correctly connected and connector does not dis-connected. B1-A4 (CN4002-CN1301), B2-A5 (CN4005 -CN1302)
Yes
CK1343 13.2V
CK1345 6V
CK1341 10V(STB)
(CN1301-pins 1, 3 and 5 on the MAIN Assy)
CK4023 13.2V
CK4025 6V
CK4027 10V(STB)
(CN4002-pins 1, 3 and 5 on the VIDEO Assy)
Yes
Replace the DC POWER SUPPLY Assy
Check that the judgment of Assy's present/absent is correct.
No
Yes
CK1339 (CN1301-pin 11 on the MAIN Assy)
CK4033 (CN4002-pin 11 on the VIDEO Assy)
GND is correct.
Check that the S input detection is correct.
No
Yes
CK1337 (CN1301-pin 10 on the MAIN Assy)
CK4032(K4013) (CN4002-pin 10 on the VIDEO Assy)
+12V at S input and GND at C.V input are correct.
Check that reset signal is flow.
No
Yes
Check that CK4029 turns to GND in a moment at power ON.
(CN4002-pin 7 on the VIDEO Assy)
Check that I2C data is correct.
No
Yes
CK1335 (CN1301-pins 8, 10 on the MAIN Assy)
CK4030(K4011) CK4031(K4012) (CN4002-pins 8, 9 on the VIDEO Assy)
Some data are being sent in the amplitude of 5V.
Replace the VIDEO Assy
Replace the MAIN Assy
End

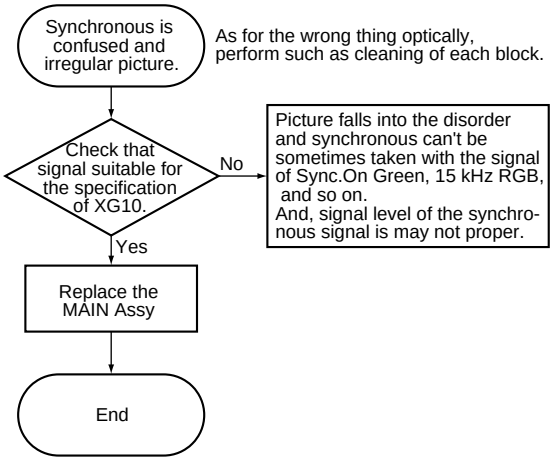
■ Picture is not output (All colors)


Video signal is not output. (All colors)
In case of lamp is light, set LED display is correct and it's not PD (Power Down), etc.
Check that OSD is displayed.
No
Check that the power supply is correct.
It usually becomes PD.
Check the diagnosis of PD.
Push and confirm MUTE key. (Main unit or Remote control unit)
Yes
Yes
Check that mute is operated.
No
Picture appears on faintly light and generally it is dark.
No
Yes
Optical system is dirty and life of lamp, etc.
Yes
Clean the parts of optical system and lamp or replace it.
No
Abnormality of the adjustment data.
Yes
Reinput the adjustment data.
Is it normal?
No
No
Replace the MAIN Assy
End

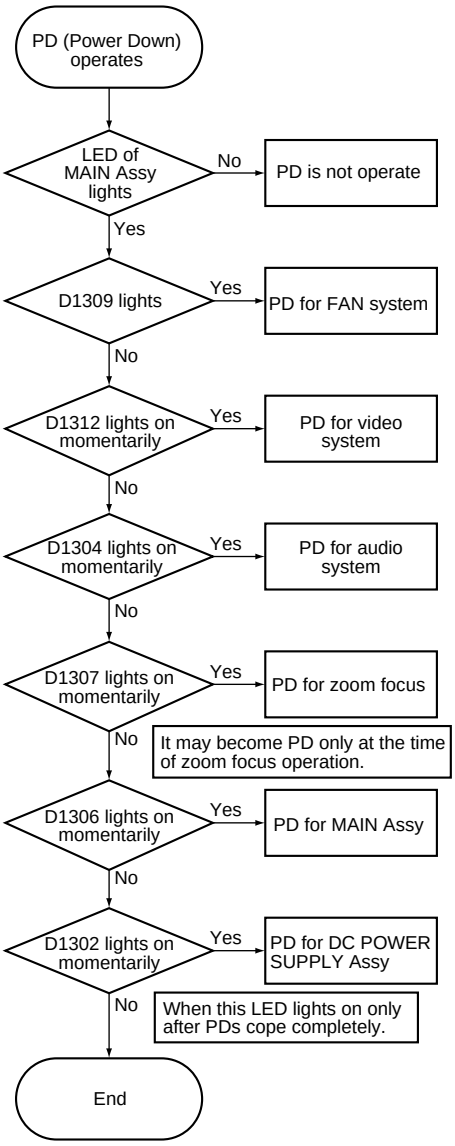
■ Picture is abnormal (More than one color is correct)


Video signal is not output (More than one color is correct).
Replace the flexible cable of the panel connection with normal color to abnormal color.
Check that the abnormal color is changed.
No
Defect of the panel and replace the optical block.
Yes
Reinput the adjustment data.
Check that the color returns correctly.
Yes
No
Replace the MAIN Assy
End

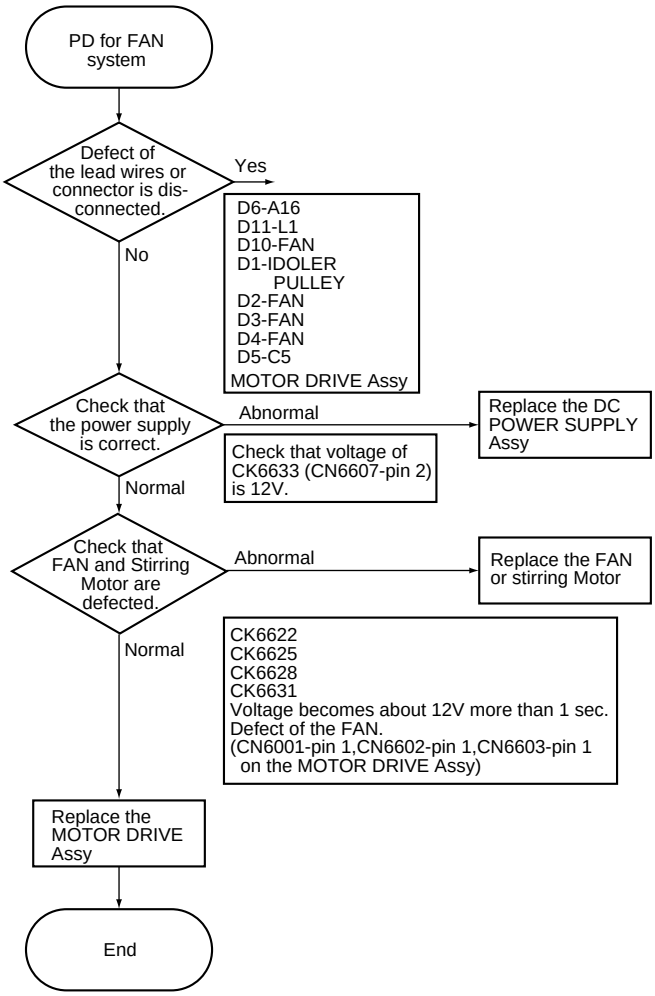
■ Synchronous is confused and irregular picture


Synchronous is confused and irregular picture.
As for the wrong thing optically, perform such as cleaning of each block.
Check that signal suitable for the specification of XG10.
No
Picture falls into the disorder and synchronous can't be sometimes taken with the signal of Sync.On Green, 15 kHz RGB, and so on.
And, signal level of the synchronous signal is may not proper.
Yes
Replace the MAIN Assy
End

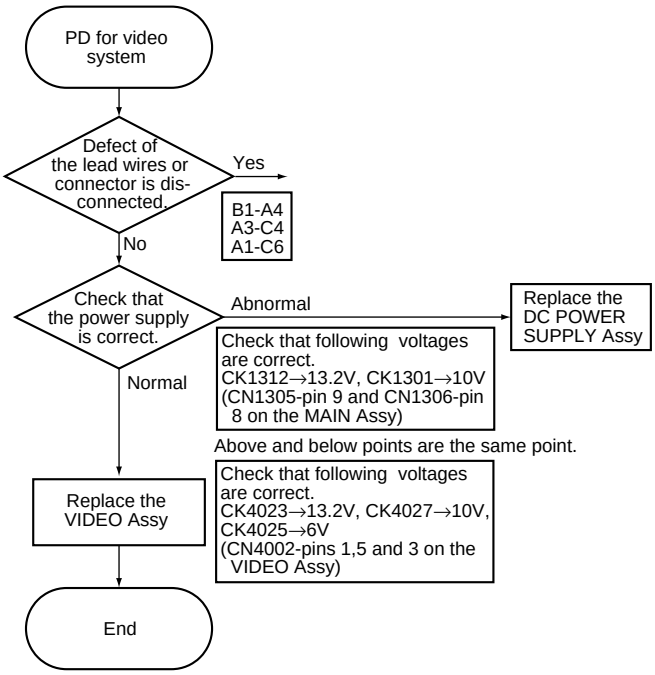
■ PD (Power Down) operates



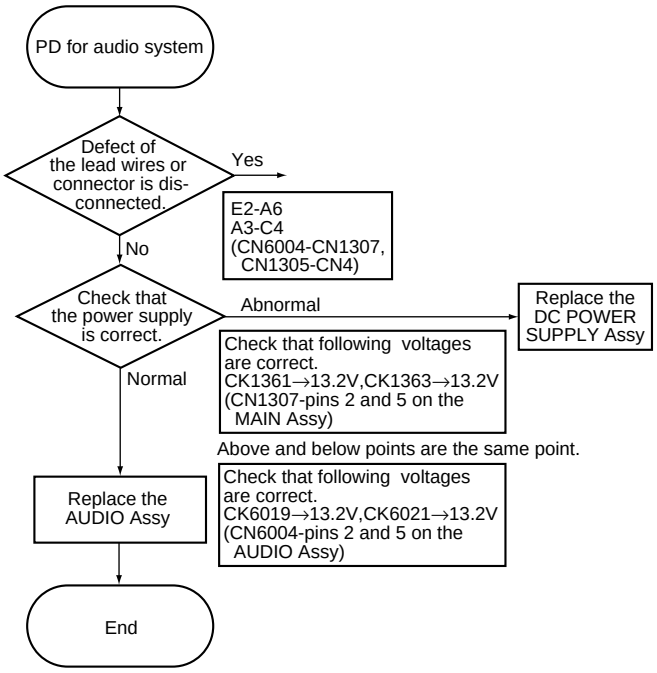
■ PD for Fan system



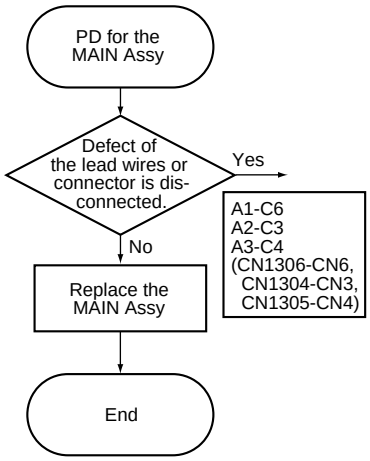
■ PD for Video system



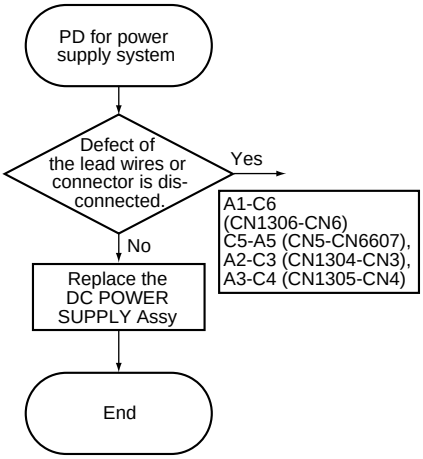
■ PD for Audio system



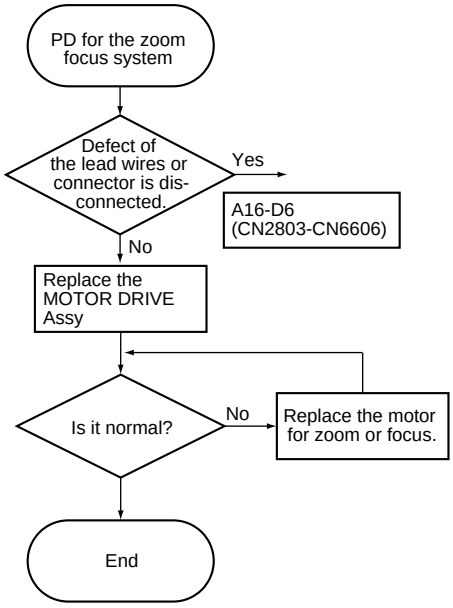
■ PD for MAIN Assy system



■ PD for POWER SUPPLY system



■ PD for Zoom focus system



■ Wiring Between The Each Assy and Signal Contents

MAIN ASSY			DC Level (Volt)			DC POWER SUPPLY ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON	at Abnormal	Pin Name	Pin No.	Connector
A1 (CN1306) S8B-PH-SM3-TBB	1	AC_CLK	0 to 5V CLK	0 to 5V CLK	0 to 5V CLK	AC_CLK	8	C6 (CN6) (PH8)
	2	V_PC	0 to 5V CLK	0 to 5V CLK	0 to 5V CLK	V_PC	7	
	3	PDC	0	0	5	PDC	6	
	4	PD_PS	5	5	0	PD_PS	5	
	5	P_MUTE	0	0	5	P_MUTE	4	
	6	STB_DOWN	5	5	0	STB_DOWN	3	
	7	POW_SW	5	5	0	POW_SW	2	
	8	STB_10V	10	10		STB_10V	1	

MAIN ASSY			DC Level (Volt)			DC POWER SUPPLY ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON	At Abnormal	Pin Name	Pin No.	Connector
A2 (CN1304) S10B-PH-SM3-R-TBB							12	C3 (CN3) (PH12)
	1	D_GND	0	0	0	D_GND	11	
	2	D_GND	0	0	0	D_GND	10	
	3	D_GND	0	0	0	D_GND	9	
	4	D_GND	0	0	0	D_GND	8	
	5	D_GND	0	0	0	D_GND	7	
	6	D_3.3V	0	3.3	0.1	D_3.3V	6	
	7	D_3.3V	0	3.3	0.1	D_3.3V	5	
	8	D_3.3V	0	3.3	0.1	D_3.3V	4	
	9	D_5V	0	5	0.7	D_5V	3	
	10	D_5V	0	5	0.7	D_5V	2	
							1	

MAIN ASSY			DC Level (Volt)			DC POWER SUPPLY ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON	At Abnormal	Pin Name	Pin No.	Connector
A3 (CN1305) S12B-PH-SM3-R-TBB	1	GND	0	0	0	GND	12	C4 (CN4) (PH13)
	2	GND	0	0	0	GND	11	
	3	GND	0	0	0	GND	10	
	4	GND	0	0	0	GND	9	
	5	GND	0	0	0	GND	8	
	6	6V	0	6	0.1	6V	7	
	7	6V	0	6	0.1	6V	6	
	8	13.2V	0	13.2	0.2	13.2V	5	
	9	13.2V	0	13.2	0.2	13.2V	4	
	10	17V	0	17	0.3	17V	3	
	11	A_GND	0	0	0	A_GND	2	
	12	A_13.2V	0	13.2	0.2	A_13.2V	1	

MAIN ASSY			DC Level (Volt)				VIDEO ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON		At Abnormal	Pin Name	Pin No.	Connector
				COMP	VIDEO				
A4 (CN1301) S12B-PH-SM3-TBB	1	13.2V	0.2	13.2	13.2	0.2	13.2V	1	B1 (CN4002) S12B-PH-SM3-TBB
	2	GND	0	0	0	0	GND	2	
	3	6V	0.1	6	6	0.1	6V	3	
	4	GND	0	0	0	0	GND	4	
	5	STB10V	9.9	10	10	9.9	STB10V	5	
	6	PD_V	0.1	5.5	5.5	0.1	PD_V	6	
	7	RESET	0	5.0	5.0	0	RESET	7	
	8	CLK	0	4.9	0	0	CLK	8	
	9	DATA	0	4.9	0	0	DATA	9	
	10	S_SW	0	0	0	0	S_SW	10	
	11	ASS'Y	0.5	0.5	0.5	0.5	ASS'Y	11	
	12	MUTE	0	0	0	0	MUTE	12	

MAIN ASSY			DC Level (Volt)				VIDEO ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON		At Abnormal	Pin Name	Pin No.	Connector
				COMP	VIDEO				
A5 (CN1302) S8B-ZR-SM3A-TFB	1	R	0	1.9	2.2	0	R	1	B2 (CN4005) S8B-ZR-SM3A-TFB
	2	GND	0	0	0	0	GND	2	
	3	G	0	1.9	2.1	0	G	3	
	4	GND	0	0	0	0	GND	4	
	5	B	0	1.9	2.1	0	B	5	
	6	GND	0	0	0	0	GND	6	
	7	CS	0	4.0	4.0	0	CS	7	
	8	HS	0.5	0.9	0.9	0.5	HS	8	

MAIN ASSY			DC Level (Volt)			AUDIO ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON	At Abnormal	Pin Name	Pin No.	Connector
A6 (CN1307) S10B-PH-SM3-TBB	1	A_GND	0	0	0	A_GND	1	E2 (CN6004) S10B-PH-SM3-TBB
	2	A_13.2V	0.2	13.5	0.2	A_13.2V	2	
	3	STB_10V	9.9	9.9	9.9	STB_10V	3	
	4	GND	0	0	0	GND	4	
	5	13.2V	0.2	13.4	0.2	13.2V	5	
	6	PD_A	0.2	11.4	0.2	PD_A	6	
	7	A_MUTE	0	4.6	0	A_MUTE	7	
	8	VOLUME	0	0 to 4.5	0	VOLUME	8	
	9	A_SEL1	4.9	4.9	4.9	A_SEL1	9	
	10	A_SEL0	0	0	0	A_SEL0	10	

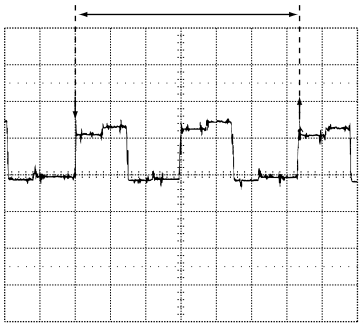
MAIN ASSY			DC Level (Volt)			FLICKER CONNECT ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON	At Abnormal	Pin Name	Pin No.	Connector
A8 (CN3501) S6B-ZR-SM3A-TFB	1	R-	0.1	5.7	0	R-	1	J1 (CN6970) AKM9043-A-TBB
	2	R+	0	5.7	0	R+	2	
	3	G-	0	5.0	0	G-	3	
	4	G+	0	5.0	0	G+	4	
	5	B-	0.1	5.5	0	B-	5	
	6	B+	0	5.5	0	B+	6	

MAIN ASSY			DC Level (Volt)					
Connector	Pin No.	Pin Name	STB	POWER ON		At Abnormal	Pin No.	Connector
				R	G, B			
A9 (CN3401) A10 (CN3402) A11 (CN3403) AKM9044-A-TBB	1	ITO	0	7.6	7.4	0	1	Panel R Panel G Panel B
	2	NC	0	0	0	0	2	
	3	PHASE2/4	0	0	0	0	3	
	4	HCLK	0	1.4	1.4	0	4	
	5	HFLP	0	3.2	0	0	5	
	6	HENB	0	0.2	0.2	0	6	
	7	BLKMODE0	0	4	4	0	7	
	8	BLKMODE1	0	4	4	0	8	
	9	VCLK	0	3.2	3.2	0	9	
	10	VFLP	0	3.2	3.2	0	10	
	11	VPENB	0	3.2	3.2	0	11	
	12	VLAT	0	3.2	3.2	0	12	
	13	DVDD	0	4	4	0	13	
	14	DGND	0	0	0	0	14	
	15	VIDEO0	0.1	7.1 to 8.3	7.1 to 8.3	0.1	15	
	16	AGND	0	0	0	0	16	
	17	VIDEO1	0.1	7.1 to 8.3	7.1 to 8.3	0.1	17	
	18	AVDD	0.3	16.9	16.9	0.3	18	
	19	VIDEO2	0.1	7.1 to 8.3	7.1 to 8.3	0.1	19	
	20	COM	0.5	7.8	0	0.5	20	
	21	VIDEO3	0.1	7.1 to 8.3	7.1 to 8.3	0.1	21	
	22	TESTVDD	0.3	16.9	16.9	0.3	22	
	23	SENS	0	4	4	0	23	
	24	ITO	0	7.6	7.4	0	24	

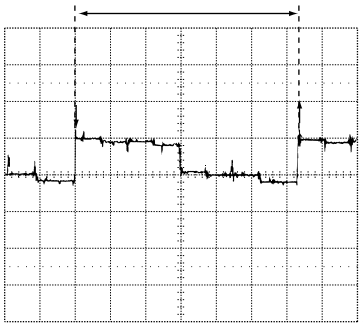
MAIN ASSY			DC Level (Volt)			LAMP BALLAST ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON	At Abnormal	Pin Name	Pin No.	Connector
A15 (CN1303) S4B-ZR-SM3A-TFB	1	NON_LIGHT_C	0.6	0.2	1.2	NON_LIGHT_C	4	G2 (CP501)
	2	NON_LIGHT_E	0	0	0.1	NON_LIGHT_E	3	
	3	LAMP_SW_A	0	5	0	LAMP_SW_A	2	
	4	LAMP_SW_K	0	3.8	0	LAMP_SW_K	1	

MAIN ASSY			DC Level (Volt)			MOTOR DRIVE ASSY		
Connector	Pin No.	Pin Name	STB	POWER ON	At Abnormal	Pin Name	Pin No.	Connector
A16 (CN2803) S11B-ZR-SM3A-TFB	1	STB_5V	5.0	5.0	5.0	STB_5V	1	D6 (CN6606) S11B-ZR-SM3A-TFB
	2	PD_F_SW	4.3	0.5	4.3	PD_F_SW	2	
	3	REM	5.0	5.0	5.0	REM	3	
	4	STB_GND	0	0	0	STB_GND	4	
	5	UZO_U	0	0	0	UZO_U	5	
	6	UZO_D	0	0	0	UZO_D	6	
	7	UFO_U	0	0	0	UFO_U	7	
	8	UFO_D	0	0	0	UFO_D	8	
	9	PD_F	0.1	3.0	0.1	PD_F	9	
	10	PD_ZF	0	0.2	0	PD_ZF	10	
	11	STB_DOWN	11.0	10.9	11.0	STB_DOWN	11	

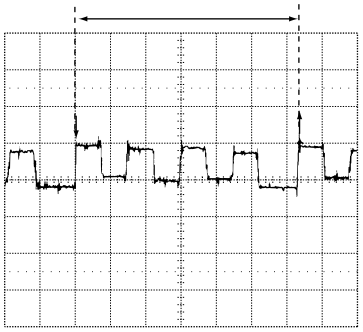
CN1302 Pin 1 (R) (COLOR BAR input)
0.5V/div. 100msec/div.
Δt = 63.55µsec, 1/Δt = 15.736kHz



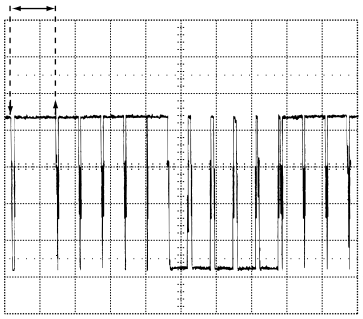
CN1302 Pin 3 (G) (COLOR BAR input)
0.5V/div. 10µsec/div.
Δt = 63.55µsec, 1/Δt = 15.736kHz



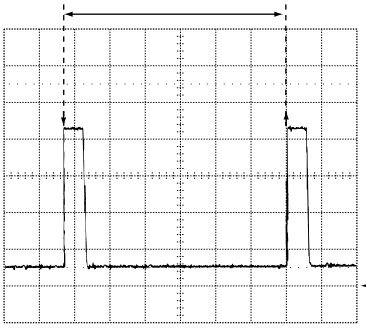
CN1302 Pin 5 (B) (COLOR BAR input)
0.5V/div. 100msec/div.
Δt = 63.55µsec, 1/Δt = 15.736kHz



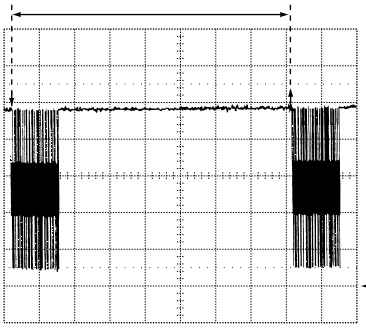
CN1302 Pin 7 (CS)
1V/div. 50msec/div.
Δt = 63.55µsec, 1/Δt = 15.736kHz



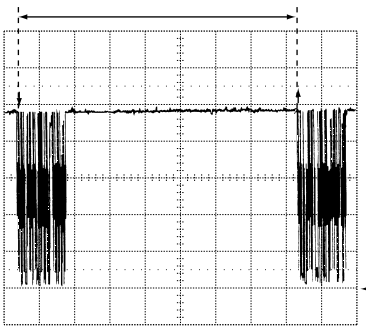
CN1302 Pin 8 (HS)
1V/div. 10µsec/div.
Δt = 63.55µsec, 1/Δt = 15.736kHz



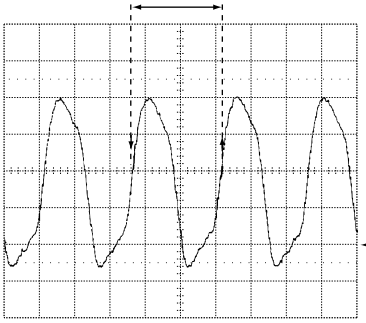
CN1301 Pin 8 (CLK) (INPUT SELECTOR = VIDEO)
1V/div. 2msec/div.
Δt = 15.92msec, 1/Δt = 62.81Hz



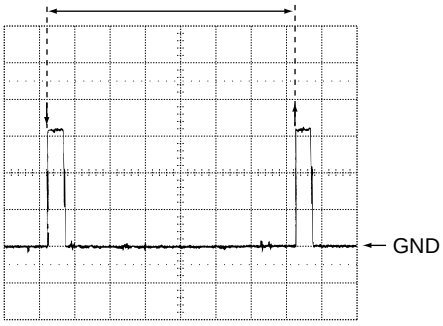
CN1301 Pin 9 (DATA) (INPUT SELECTOR = VIDEO)
1V/div. 1msec/div.
Δt = 15.92msec, 1/Δt = 62.81Hz



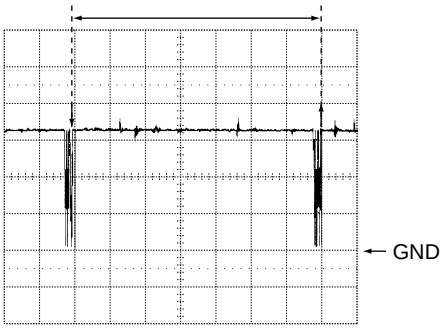
CN3402 Pin 4 (HCLK)
1V/div. 2.5Gsec/div.
Δt = 50nsec, 1/Δt = 20MHz



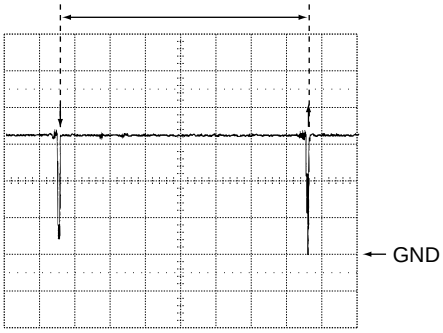
CN3402 Pin 6 (HENB)
1V/div. 2µsec/div.
Δt = 14.1µsec, 1/Δt = 70.92kHz



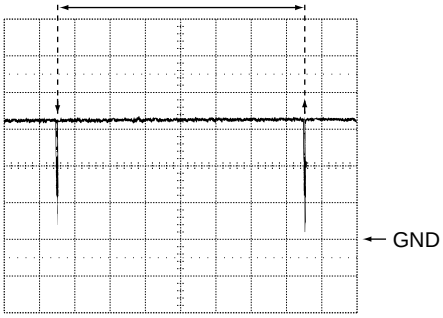
CN3402 Pin 9 (VCLK)
1V/div. 100msec/div.
Δt = 14.1µsec, 1/Δt = 70.92kHz



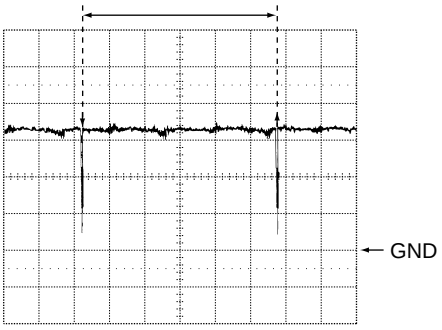
CN3402 Pin 10 (VFLIP) (at VFLIP-G = "H" in serial data)
1V/div. 2µsec/div.
Δt = 14.1µsec, 1/Δt = 70.92kHz



CN3402 Pin 12 (VLAT)
1V/div. 100msec/div.
Δt = 14.1µsec, 1/Δt = 70.92kHz

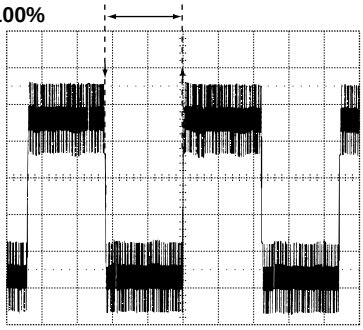


CN3402 Pin 11 (VPENB)
1V/div. 2msec/div.
Δt = 11.08msec, 1/Δt = 90.25Hz

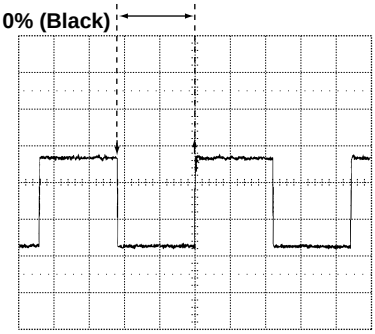


CN3402 Pin 21 (VIDEO3)
1V/div. 5msec/div.
Δt = 11.08msec, 1/Δt = 90.253Hz

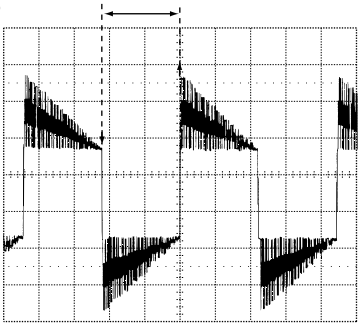
White 100%



White 0% (Black)



V-STEP



Note 1: These three waveforms are the waveform of VIDEO 3 at CN3402-pin 21. But pins 19, 17 and 15 become same waveform in the correlation 100% signal for the horizontal direction.

Note 2: Each waveform of CN3401, CN3402 and CN3403 are the fundamentally same. However, VIDEO waveform (pins 15, 17, 19 and 21) is corresponding to each color and HFLIP (pin 5) is logically inverted to CN3402 (GREEN) only.

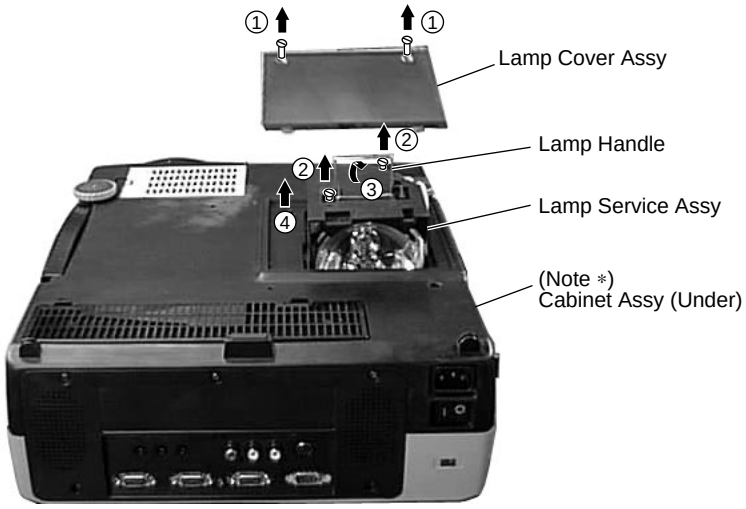
7.1.2 DISASSEMBLY

Note :

- When repairing the Mirror Case or cleaning the Mirror, perform steps **1** to **5** .
- When removing the Optical Block Assy, perform steps **1** to **6** .

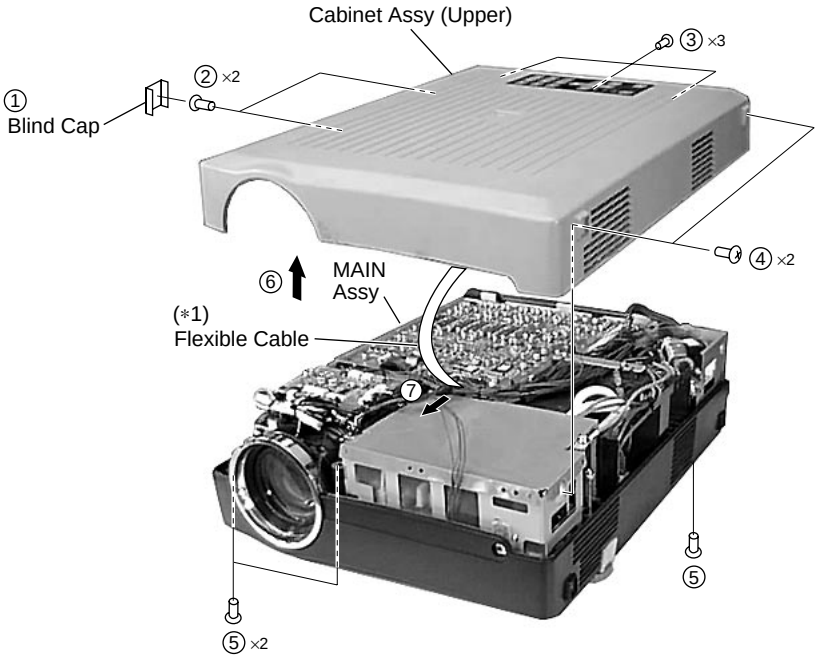
1 Lamp Service Assy

Note :
- Turn off the power switch, and perform the work under the condition that a Lamp gets cold fully.
- Prevent Lamp Service Assy from your touching it except for Lamp Handle and Lamp Case.
  Be careful not touch it because the tip of the tube is projection structure specially.



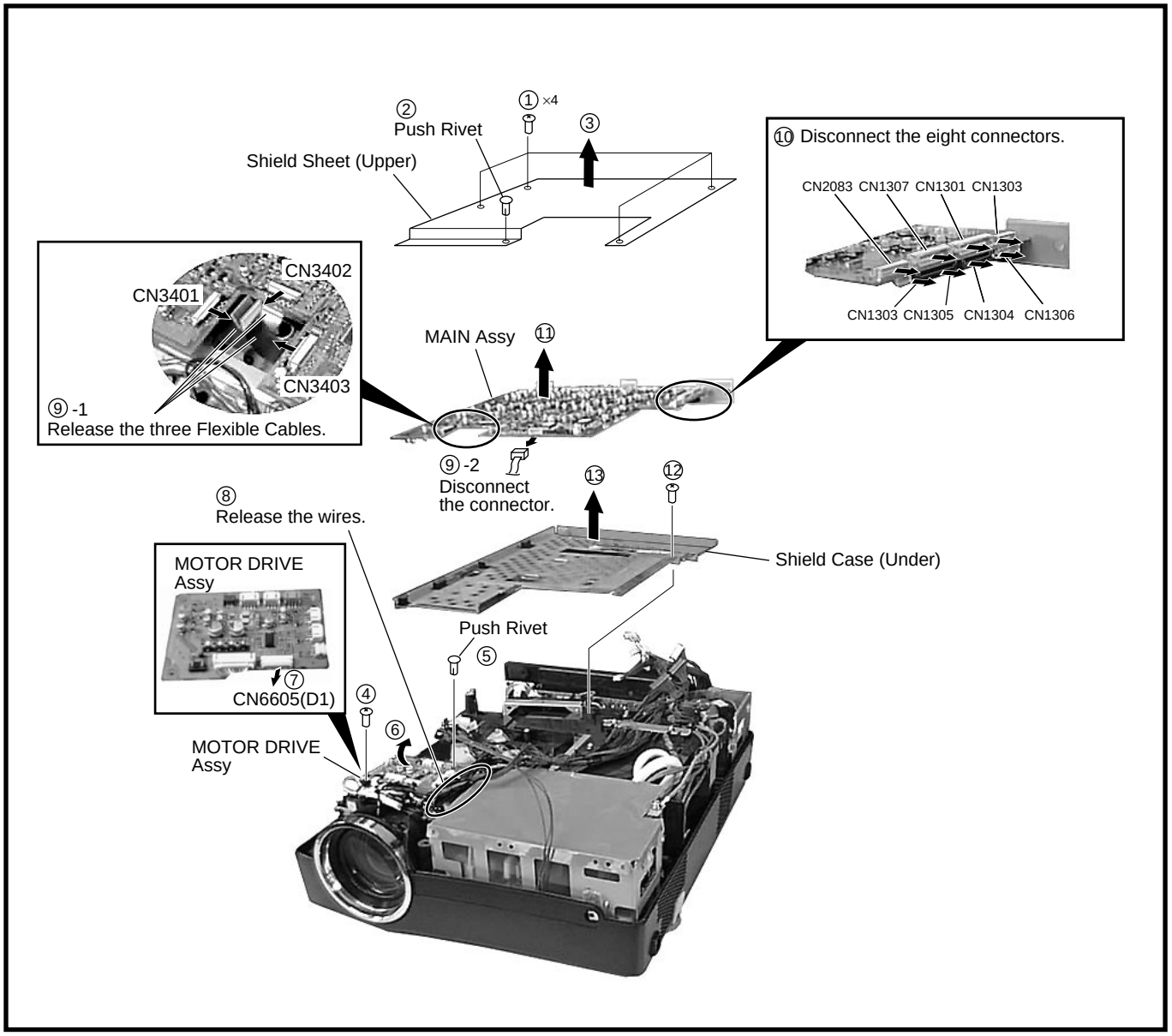
Note ∗ : Cabinet Assy (Upper) and Cabinet Assy (Under) are the same colors.

2 Cabinet Assy (Upper)

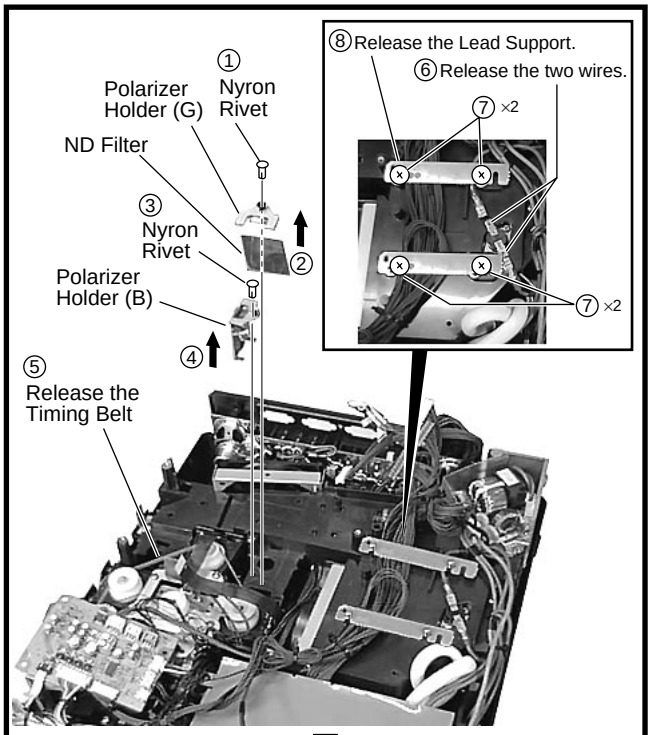


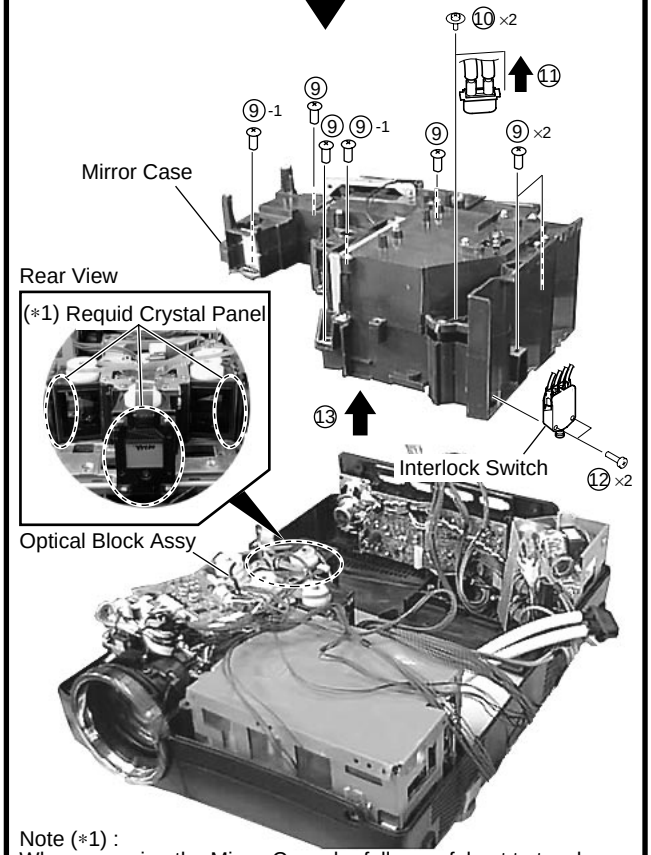
Note (∗1) :
Prevent Flexible Cable which connects the Cabinet Assy (Upper) and MAIN Assy from your pulling it too much.
When Flexible Cable is pulled too much, it becomes the cause that Flexible Cable comes out of connector and the contact defect is caused.

3 MAIN Assy and Shield Case (Under)



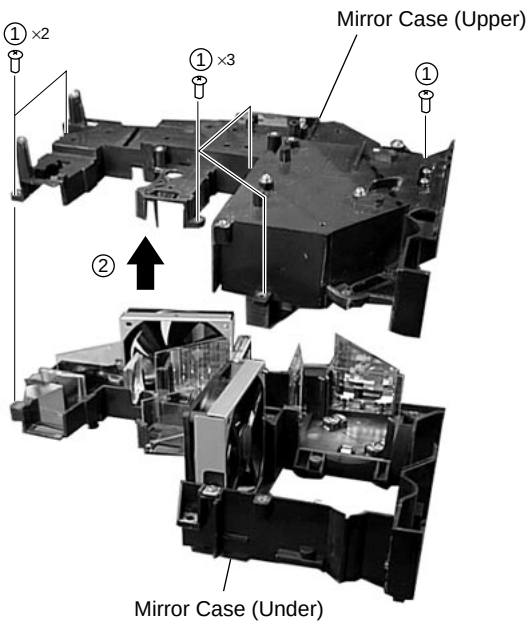
4 Mirror Case (Upper and Under)





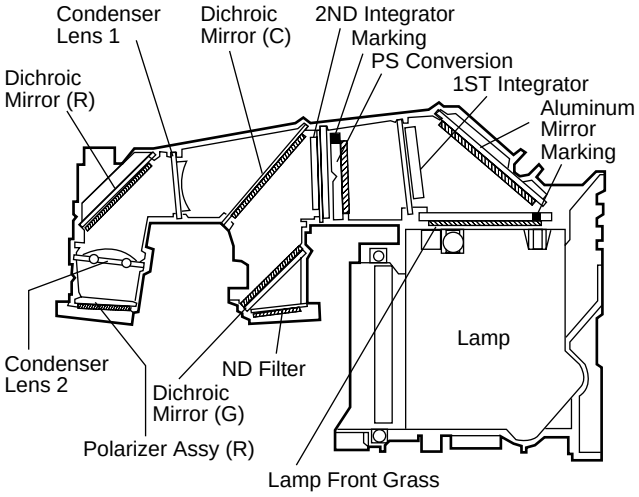
Note (∗1) :
When removing the Mirror Case, be fully careful not to touch the Mirror Case on the Optical Block Assy (especially, Liquid Crystal Panel).

5 Mirror Case (Upper)



Repairing or cleaning the Mirror and Lens.

● Position of the Mirror and Lens

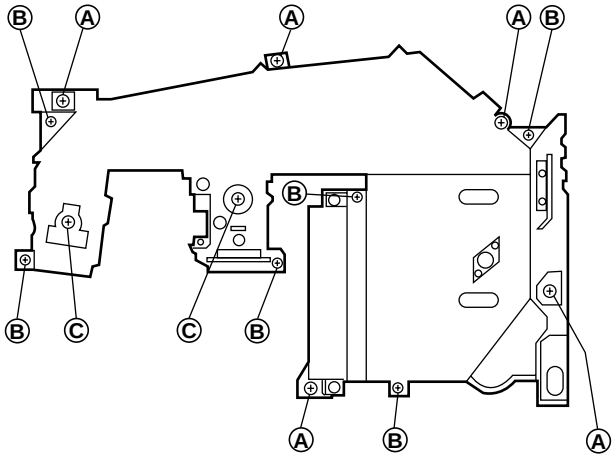


● **It is the position of the screw to remove a Mirror Case.**

Ⓐ: It is the position of the screw to remove the Mirror Case (Under) from Cabinet Assy (Under). (VPZ40P140FZK)

Ⓑ: It is the position of the screw to remove the Mirror Case (Upper) from Mirror Case (Under). (BPZ30P120FMC)

Ⓒ: It is the position of the screw to remove the Mirror Case (Under) from Optical Block Assy. (BBZ40P100FZK)



Top View

■ Precautions for service that requires opening the mirror case

If you open the mirror case for repair or other maintenance, you may see tape adhered to upper part of the 2nd integrator.
In any case, note the following before opening the mirror case.

1. Precautions for opening a mirror case (common to all the mirror cases)

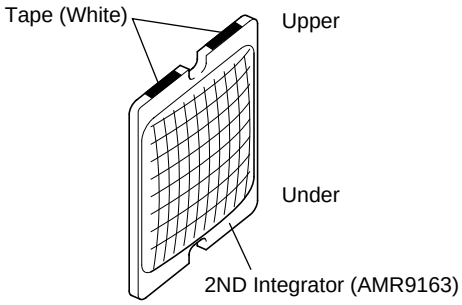
1. Some components (such as the dichroic mirror and integrator lens) may be stuck to the upper part of the mirror case. In such a case, remove and return them into the lower part of the mirror case. (For the mounting directions of the components, see page ##.)

2. Before closing the mirror case again, firmly fit all the components to the lower part of the mirror case. (Push the components in so that they will remain stable.)

2. Precaution if there is white tape adhered to upper part of the 2nd integrator (AMR9163)

In addition to item 1 above, be sure to mount the integrator with the tape facing upward.

If these precautions are neglected, yellow or purple shadow bands may appear on the upper block or right and left sides of the screen.

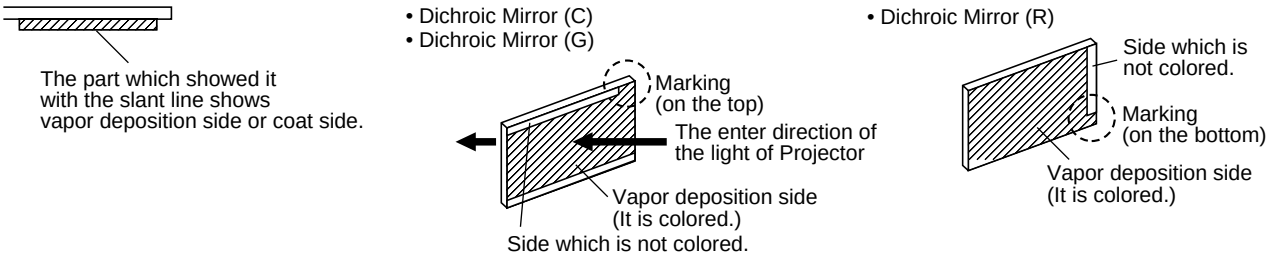


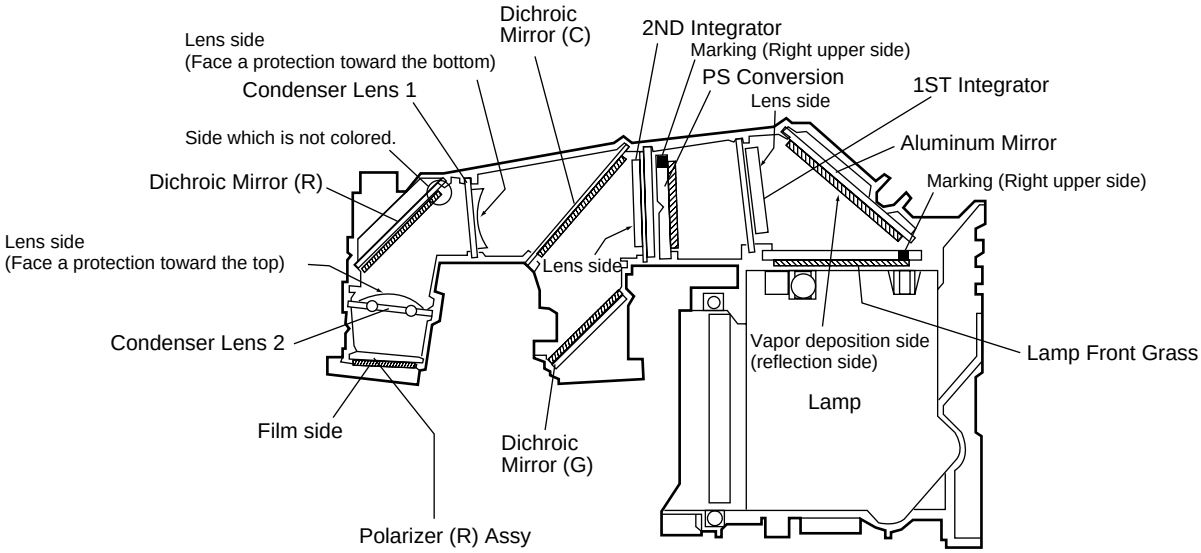
Tape putting up position reference figure

● Installation Direction such as Mirror and Lens

Mirror Case (Under)

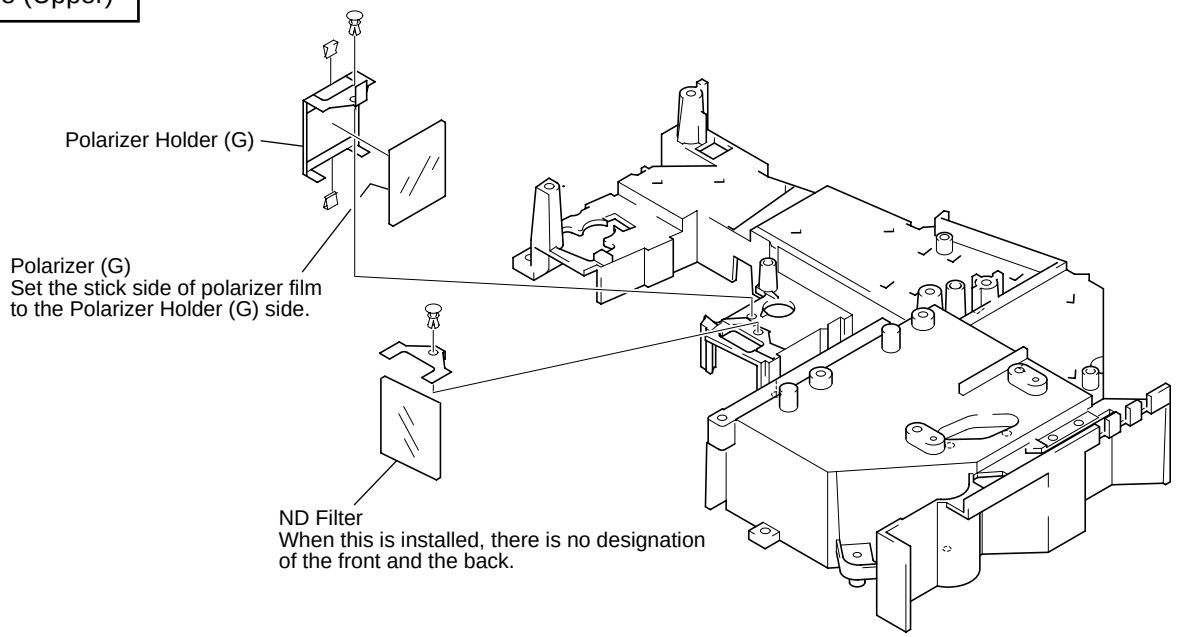
Caution : Confirm that vapor deposition side of mirror faces the enter direction of light of the Projector.


The part which showed it with the slant line shows vapor deposition side or coat side.
• Dichroic Mirror (C)
• Dichroic Mirror (G)
Marking (on the top)
The enter direction of the light of Projector
Vapor deposition side (It is colored.)
Side which is not colored.
• Dichroic Mirror (R)
Side which is not colored.
Marking (on the bottom)
Vapor deposition side (It is colored.)

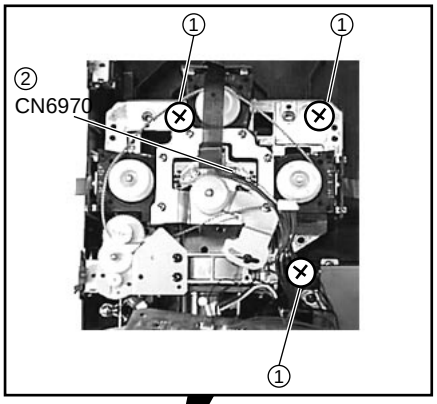


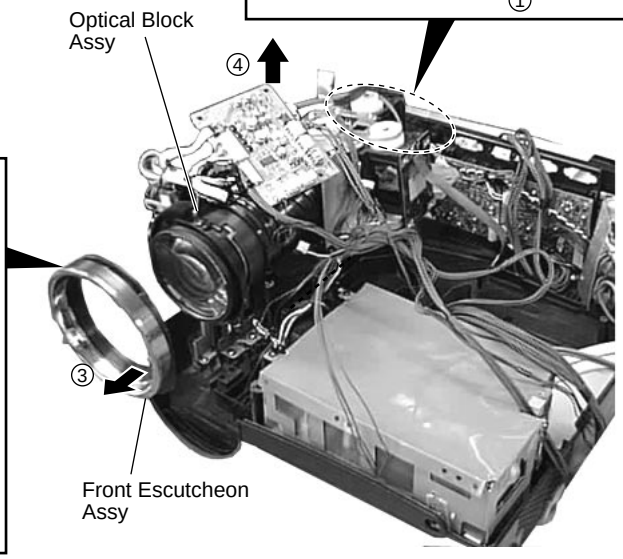
Top View

Mirror Case (Upper)

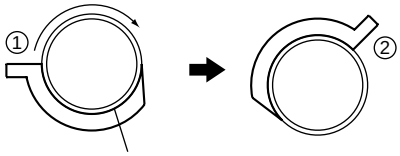

Polarizer Holder (G)
Polarizer (G)
Set the stick side of polarizer film to the Polarizer Holder (G) side.
ND Filter
When this is installed, there is no designation of the front and the back.

6 Optical Block Assy





Front View

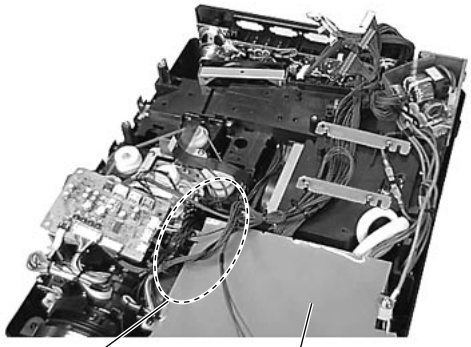


Front Escutcheon Assy

How to detach

To detach : Before pulling up the zoom lens block, turn it from ① to ②.

To attach : After attaching the optical block, turn it from ② to ①.

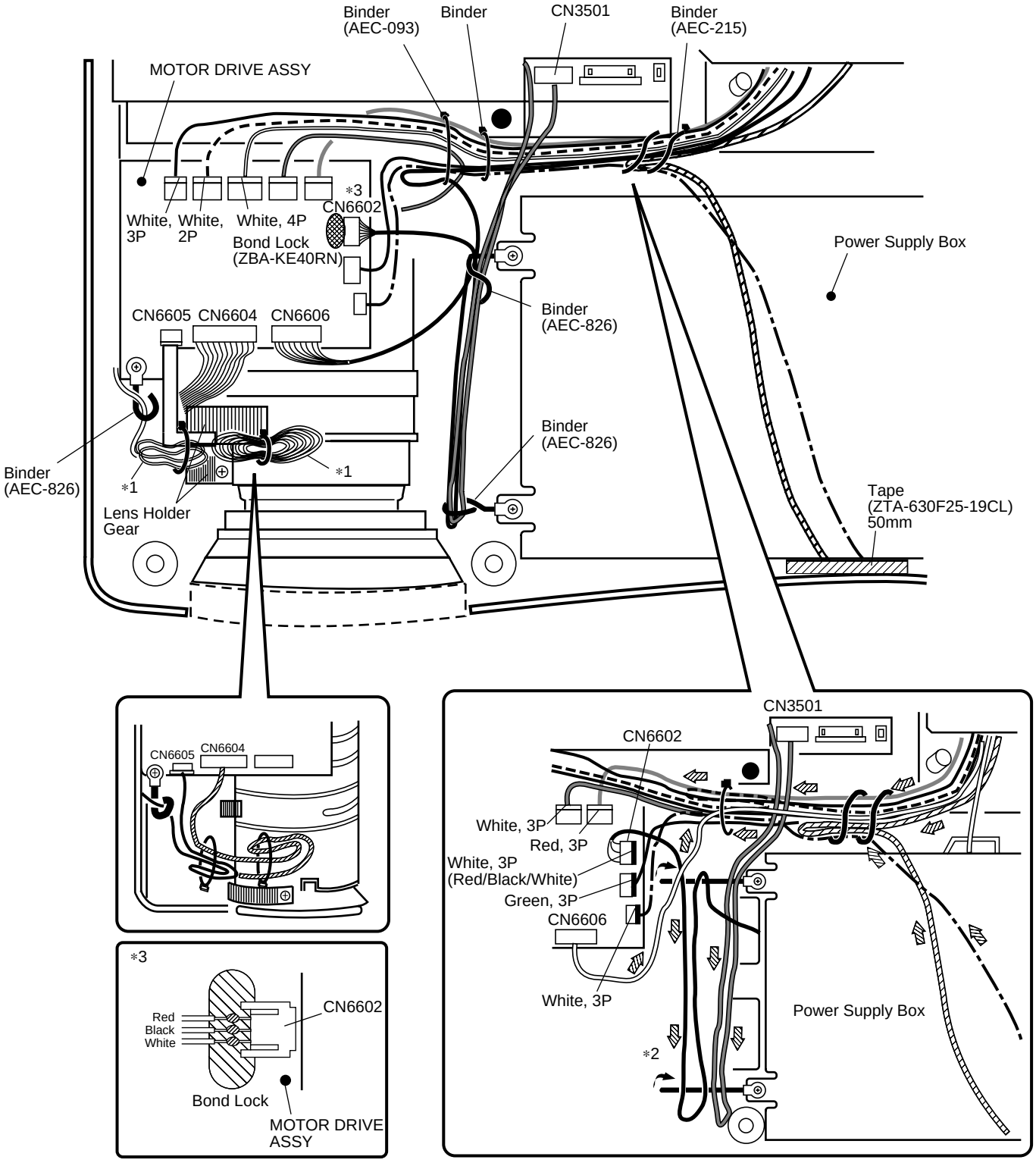


Power Supply Box

Note :
When the OPTICAL BLOCK Assy is removed, do not shock the OPTICAL BLOCK and do not touch it to the Power Supply Box.

- The Optical Block Assy can replace in this condition.
- When installing the Optical Block Assy, not to give a strong shock to the Optical Block Assy while holding the Zoom Lens Block by hand.

7.1.3 STYLING



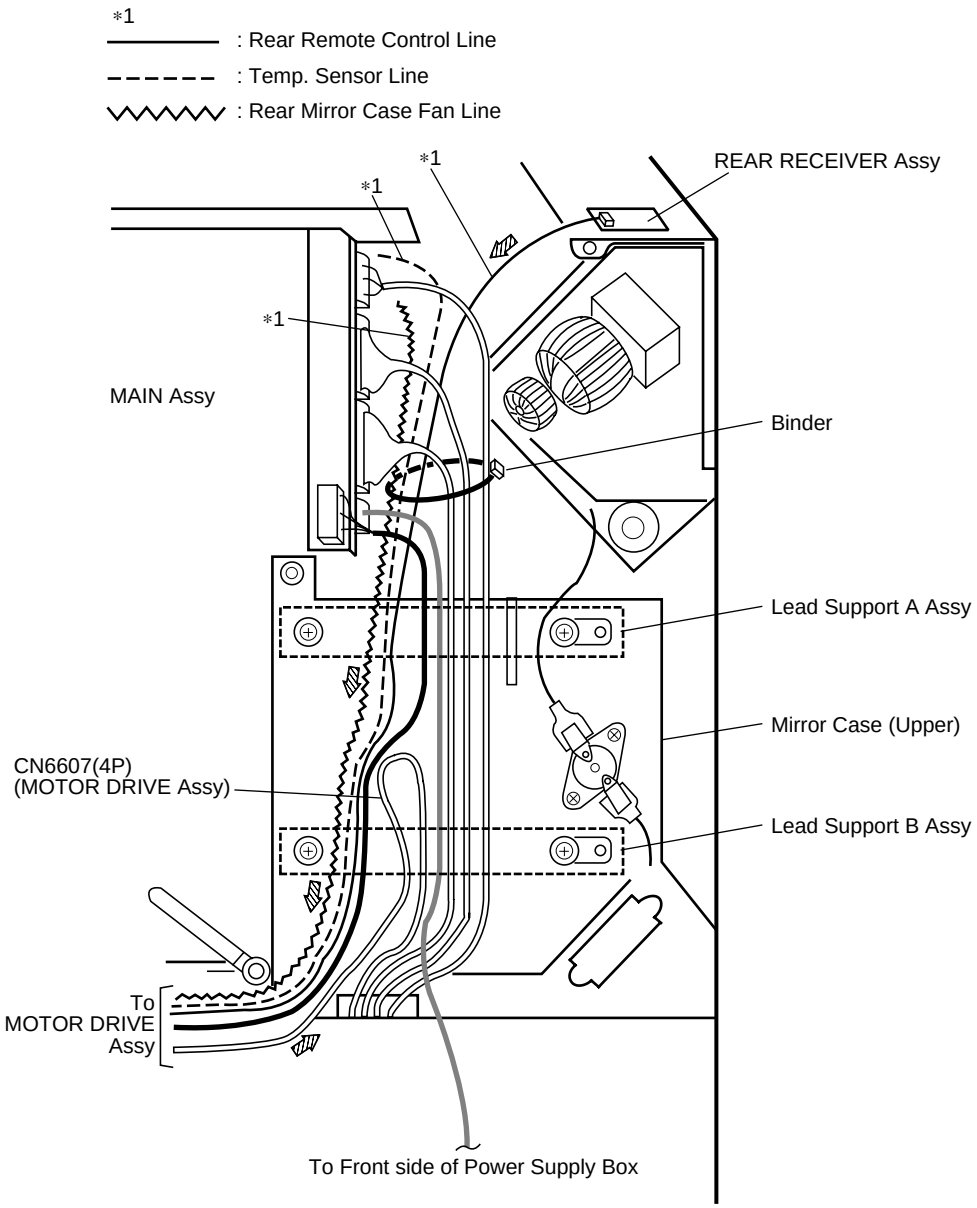
Note :

∗1. Do not touch the lead wires of CN6606, CN6604 and CN6605 to the Lens Holder Gear.

∗2. Take the lead wires of the extra length in the arrow direction when connecting the lead wires.

∗3

- When connecting the AXM9013 fan motor (with no connector) to the CN6602, solder the wires of the fan motor to the CN6602.
- When connecting the AXM9012 fan motor (with a connector) to the CN6602, directly connect it to the CN6602.



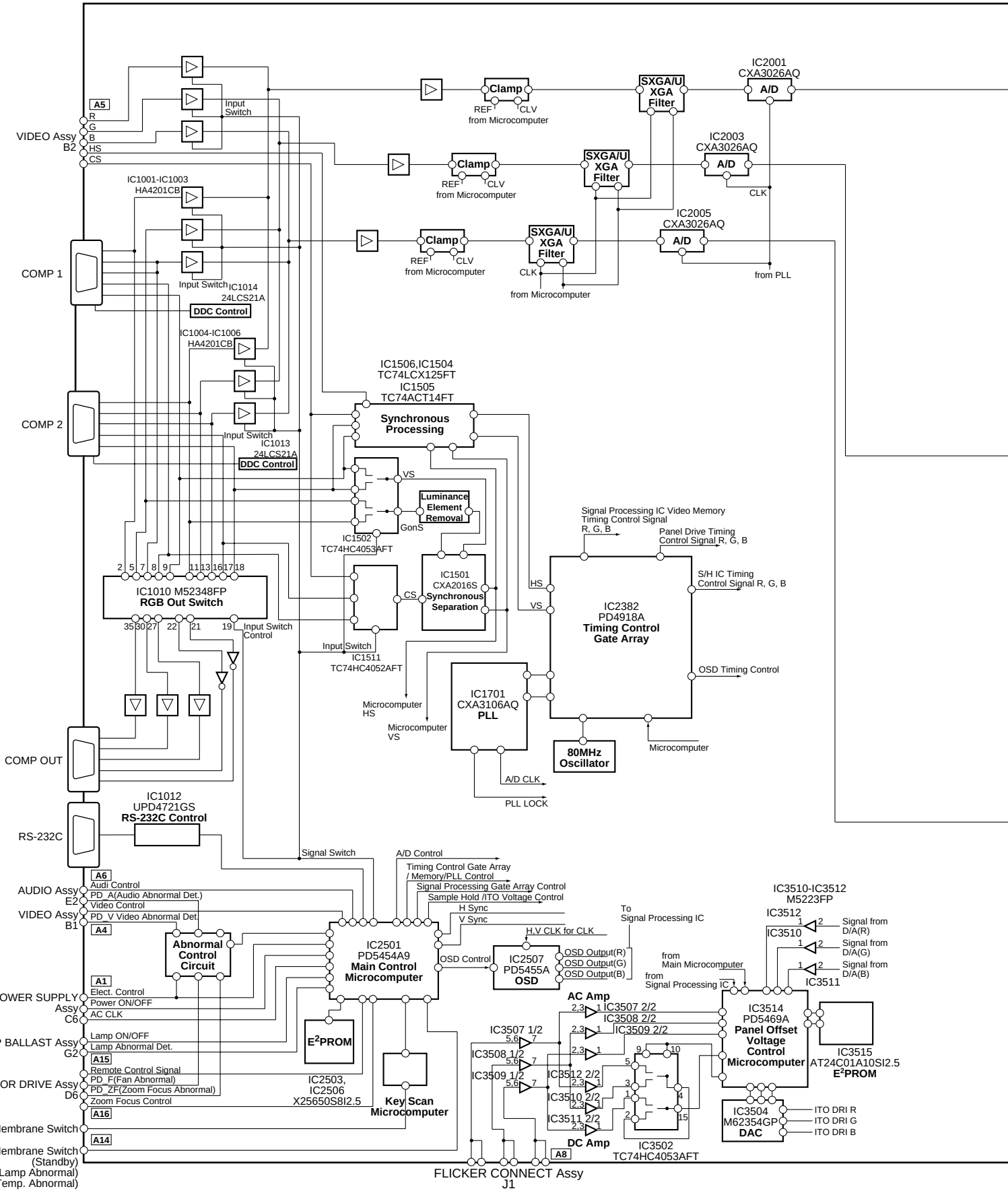
Note :

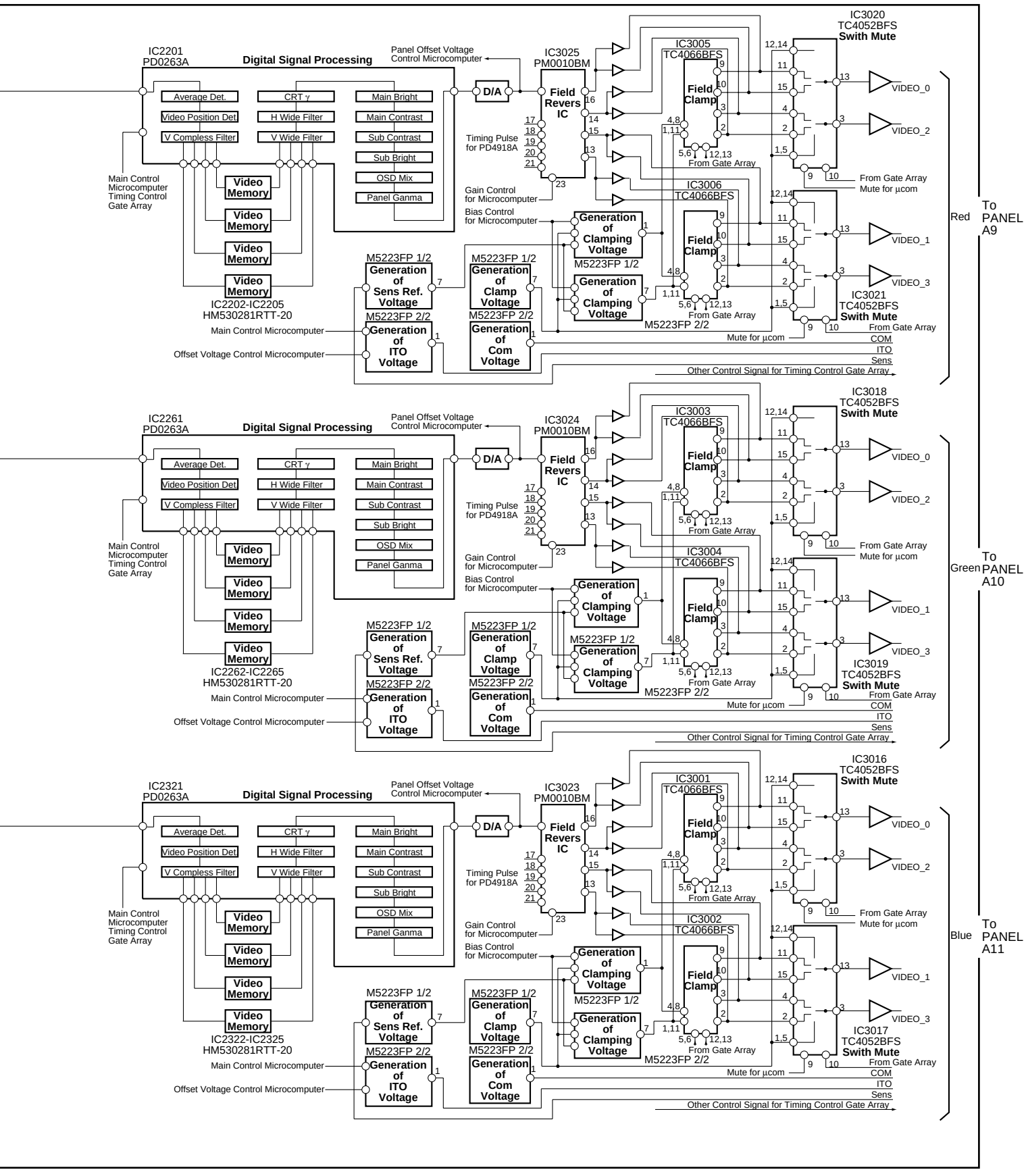
- When installing the Lead Support A Assy and B Assy, do not put the lead wires in the Lib of Mirror Case (Upper) or the space between the boss.
- Take the lead wires of the extra length in the arrow direction when connecting the lead wires.

∗1 : Three lead wires of the remote control unit, the temperature sensor and the fan of rear mirror case are sure to pass under other signal lines.

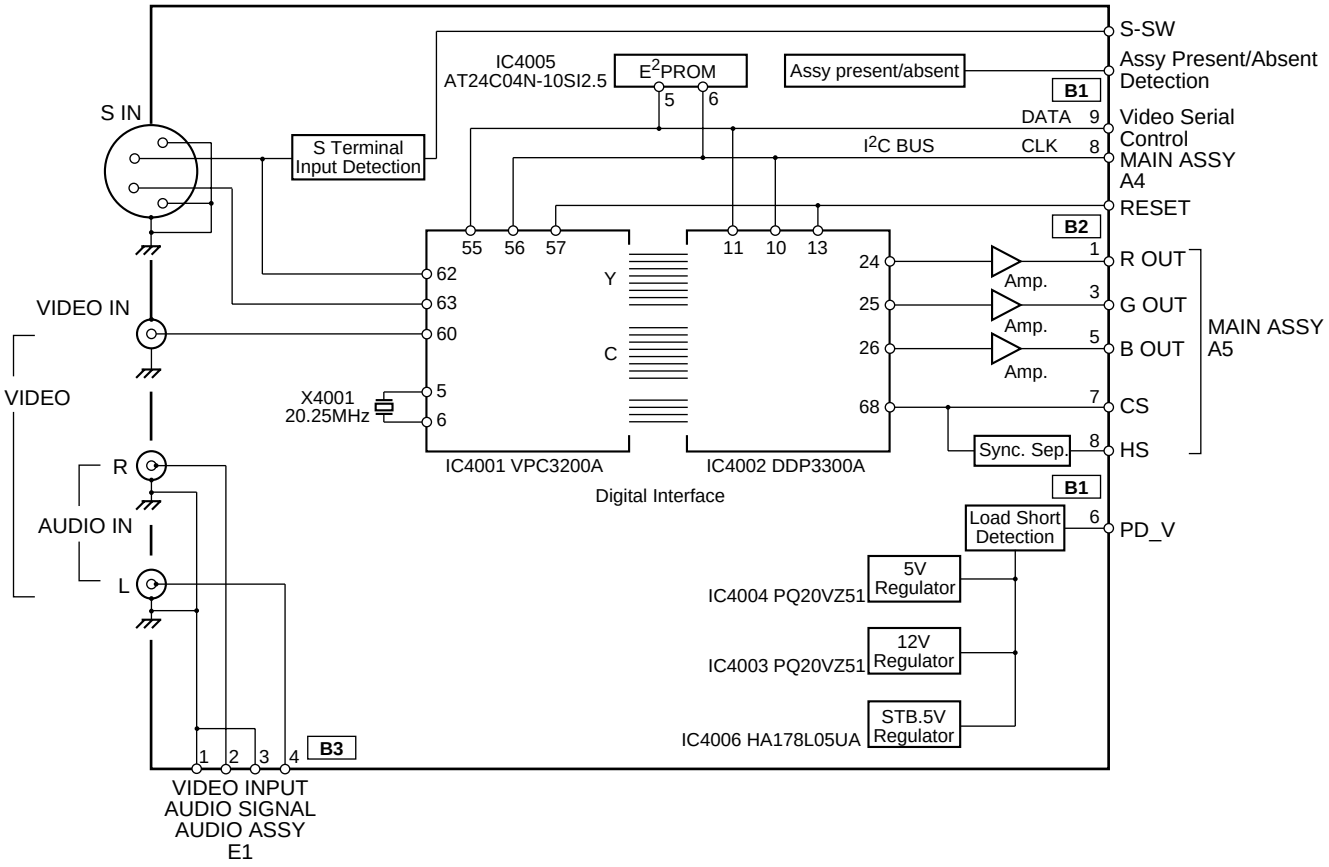
7.2 BLOCK DIAGRAM

7.2.1 MAIN ASSY

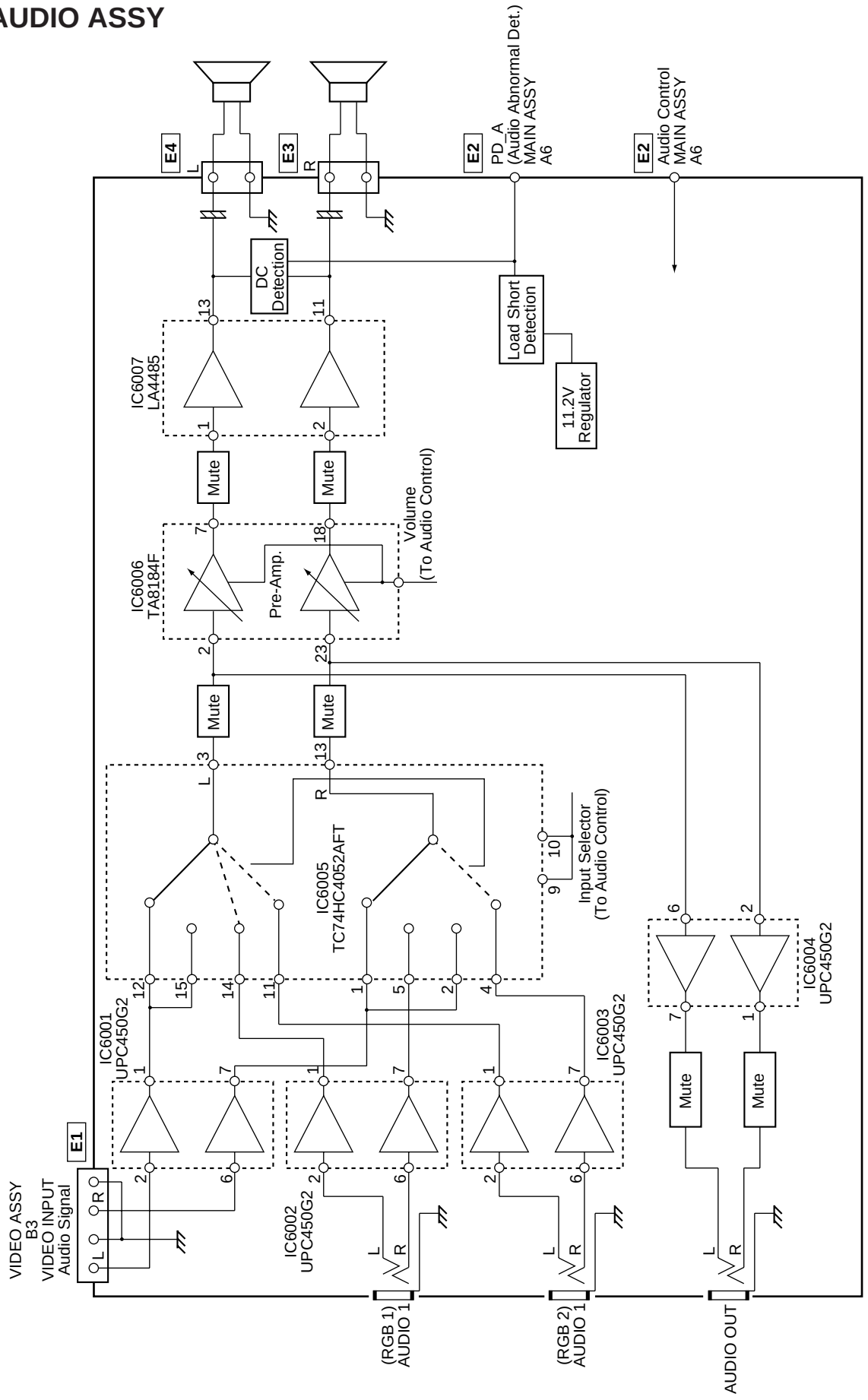



IC2201
PD0263A
Digital Signal Processing
Panel Offset Voltage
Control Microcomputer
IC3025
PM0010BM
IC3020
TC4052BFS
Swith Mute
IC3005
TC4066BFS
Average Det.
Video Position Det
V Compless Filter
CRT γ
H Wide Filter
V Wide Filter
Main Bright
Main Contrast
Sub Contrast
Sub Bright
OSD Mix
Panel Ganma
D/A
Field Revers IC
Field Clamp
Timing Pulse for PD4918A
Gain Control for Microcomputer
Bias Control for Microcomputer
Main Control Microcomputer Timing Control Gate Array
Video Memory
IC2202-IC2205
HM530281RTT-20
Generation of Clamping Voltage
IC3006
TC4066BFS
M5223FP 1/2
M5223FP 2/2
Generation of Sens Ref. Voltage
Generation of Clamp Voltage
Generation of ITO Voltage
Generation of Com Voltage
Main Control Microcomputer
Offset Voltage Control Microcomputer
From Gate Array
Mute for µcom
VIDEO_0
VIDEO_2
VIDEO_1
VIDEO_3
IC3021
TC4052BFS
Swith Mute
COM
ITO
Sens
Other Control Signal for Timing Control Gate Array
Red
To PANEL A9
IC2261
PD0263A
IC3024
PM0010BM
IC3018
TC4052BFS
Swith Mute
IC3003
TC4066BFS
IC3004
TC4066BFS
IC2262-IC2265
HM530281RTT-20
IC3019
TC4052BFS
Swith Mute
Green
To PANEL A10
IC2321
PD0263A
IC3023
PM0010BM
IC3016
TC4052BFS
Swith Mute
IC3001
TC4066BFS
IC3002
TC4066BFS
IC2322-IC2325
HM530281RTT-20
IC3017
TC4052BFS
Swith Mute
Blue
To PANEL A11

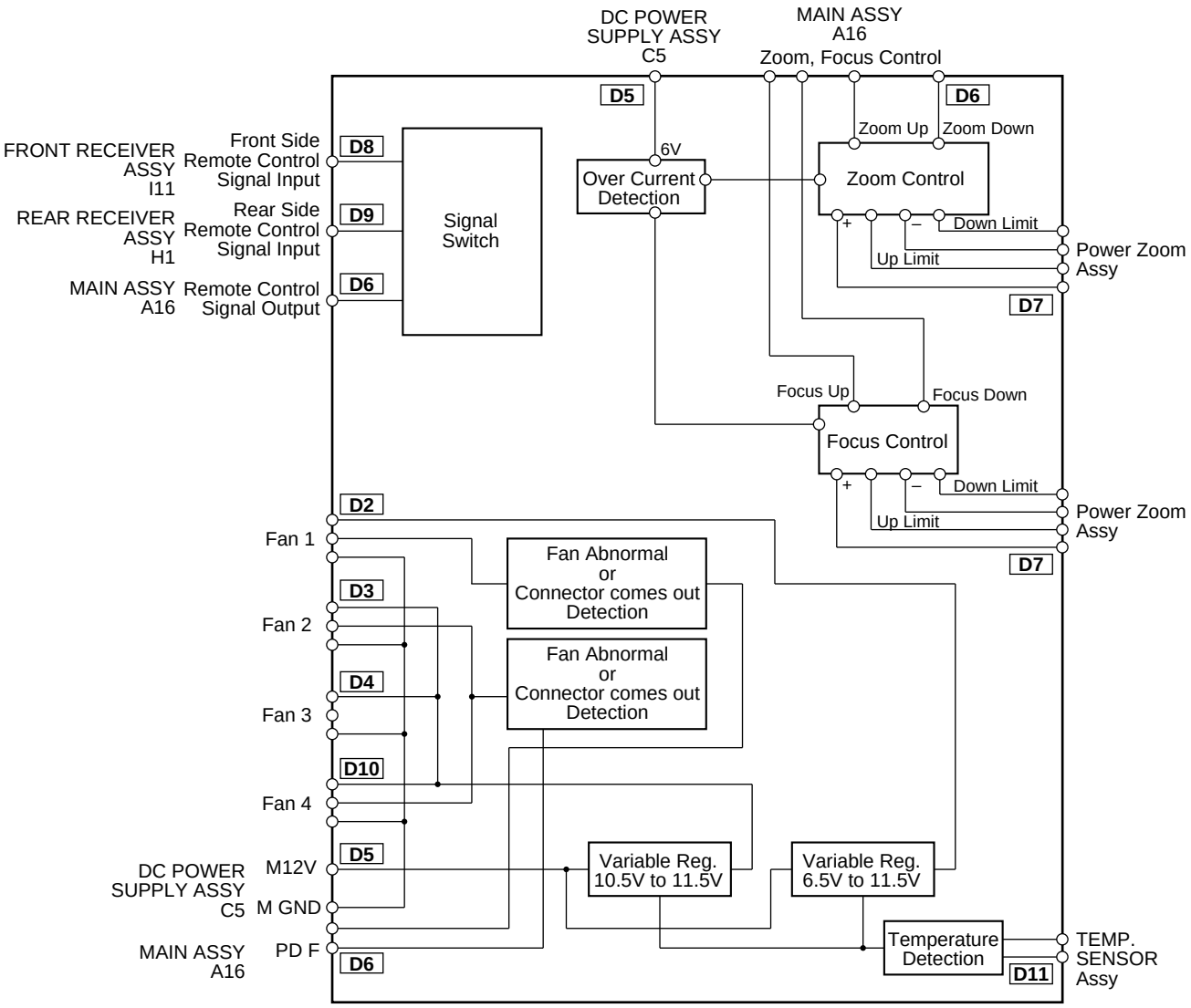
7.2.2 VIDEO ASSY



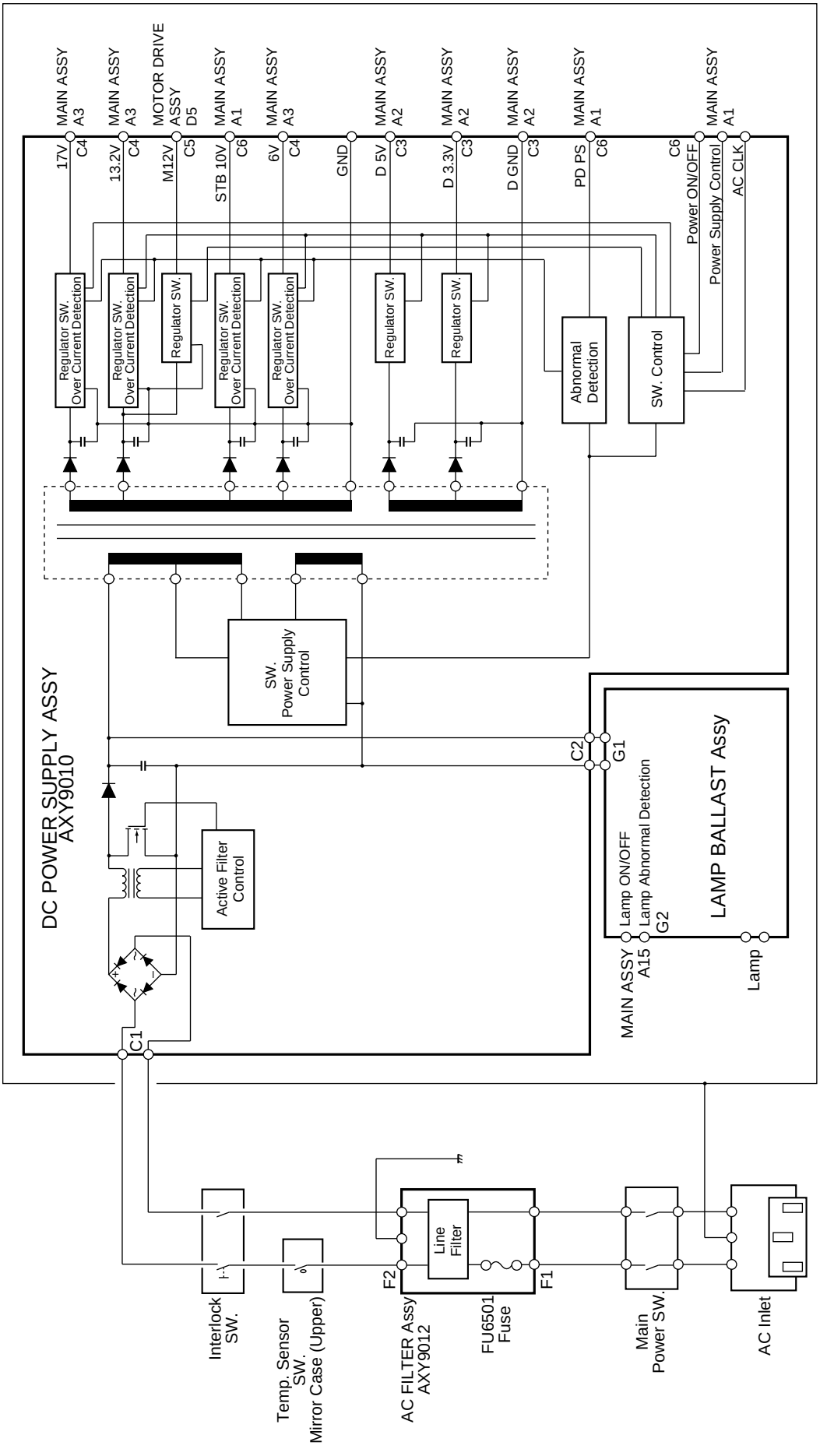
7.2.3 AUDIO ASSY



7.2.4 MOTOR DRIVE ASSY



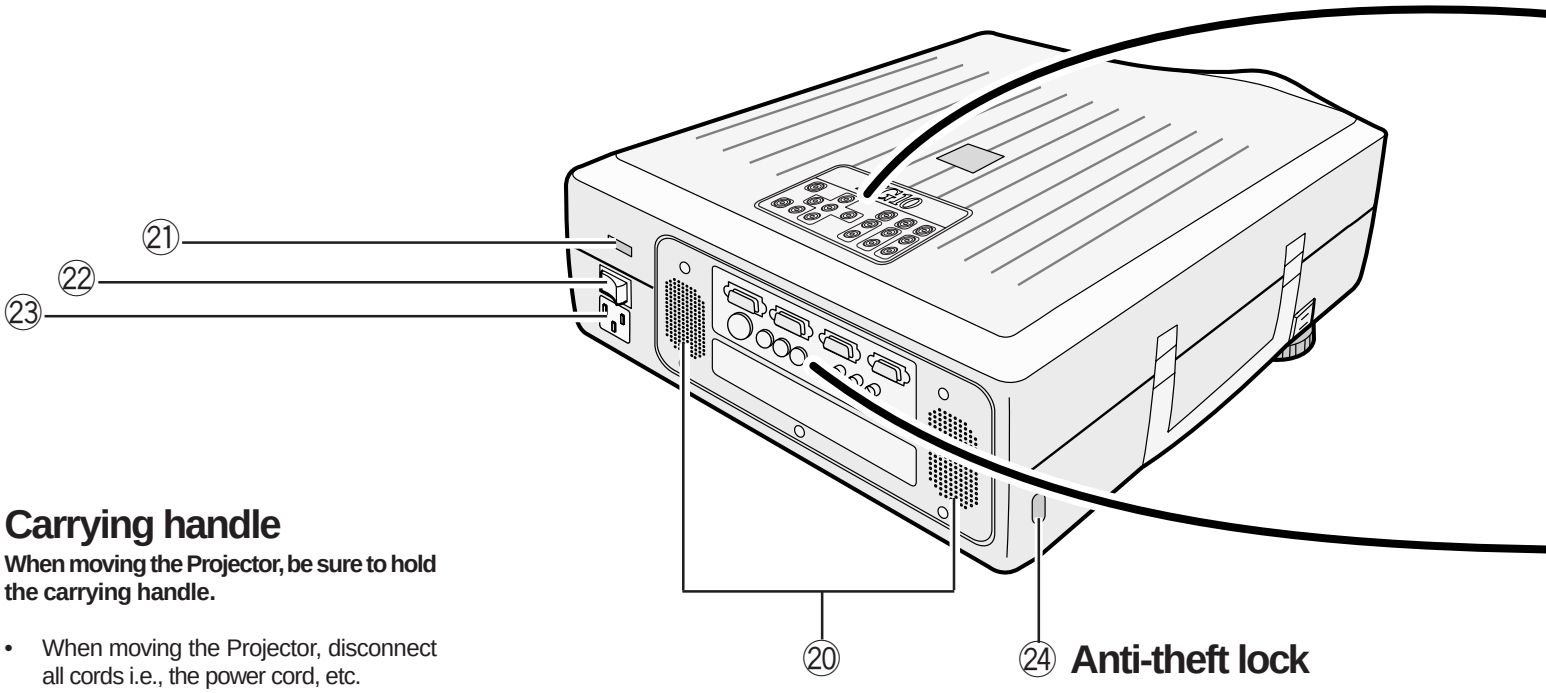
7.2.5 POWER SUPPLY SECTION



8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Projector



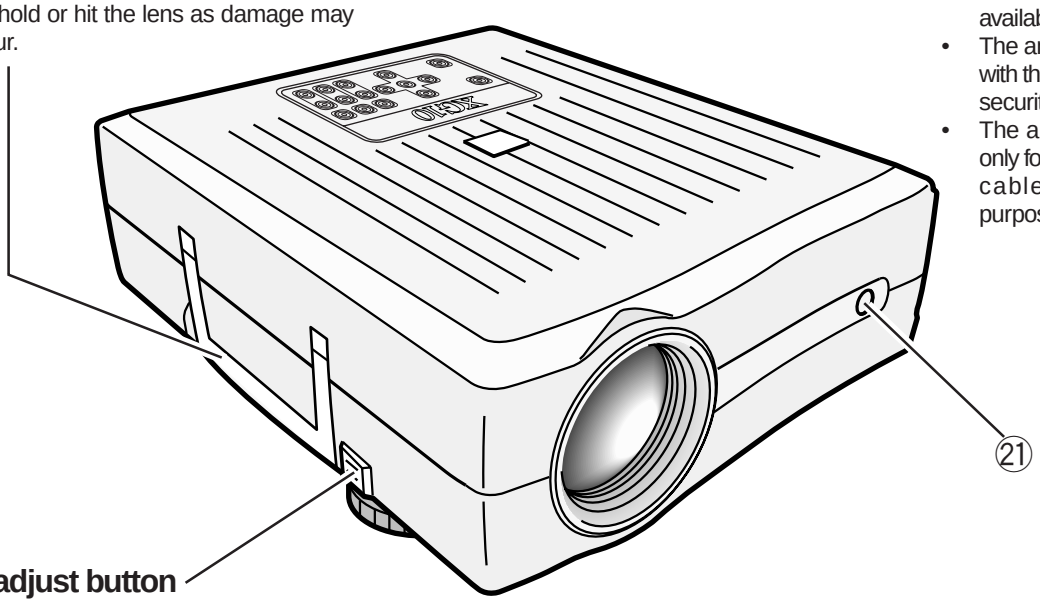
Carrying handle

When moving the Projector, be sure to hold the carrying handle.

- When moving the Projector, disconnect all cords i.e., the power cord, etc.
  Be sure to attach the lens cap to protect the lens.
- When carrying the Projector around, do not hold or hit the lens as damage may occur.

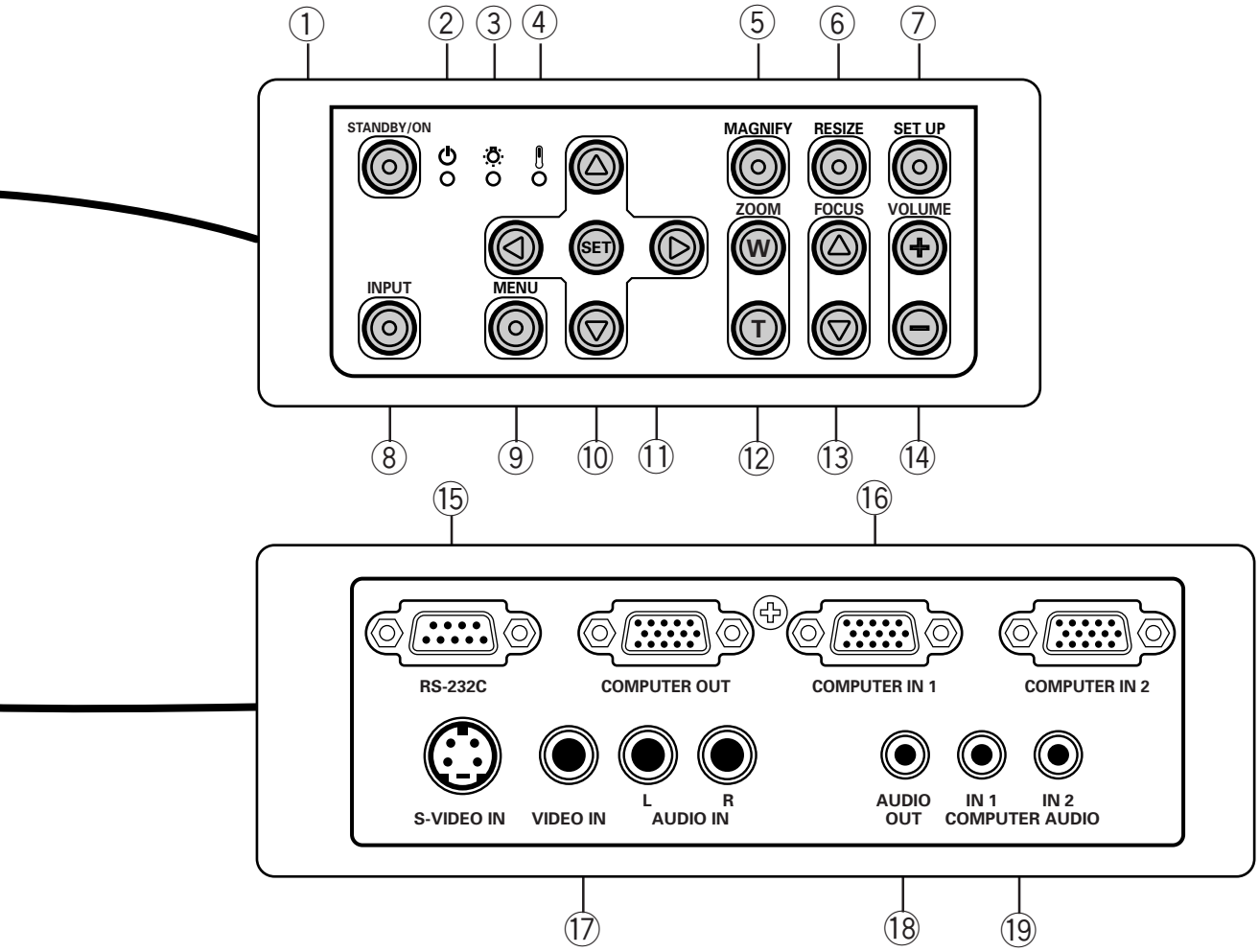
㉔ Anti-theft lock

- Connectable with a anti-theft cable (from Kensington Microware Limited), etc. available in shops.
- The anti-theft lock can be used with the Kensington micro saver security system.
- The anti-theft lock is intended only for connecting the anti-theft cable and not for other purposes.



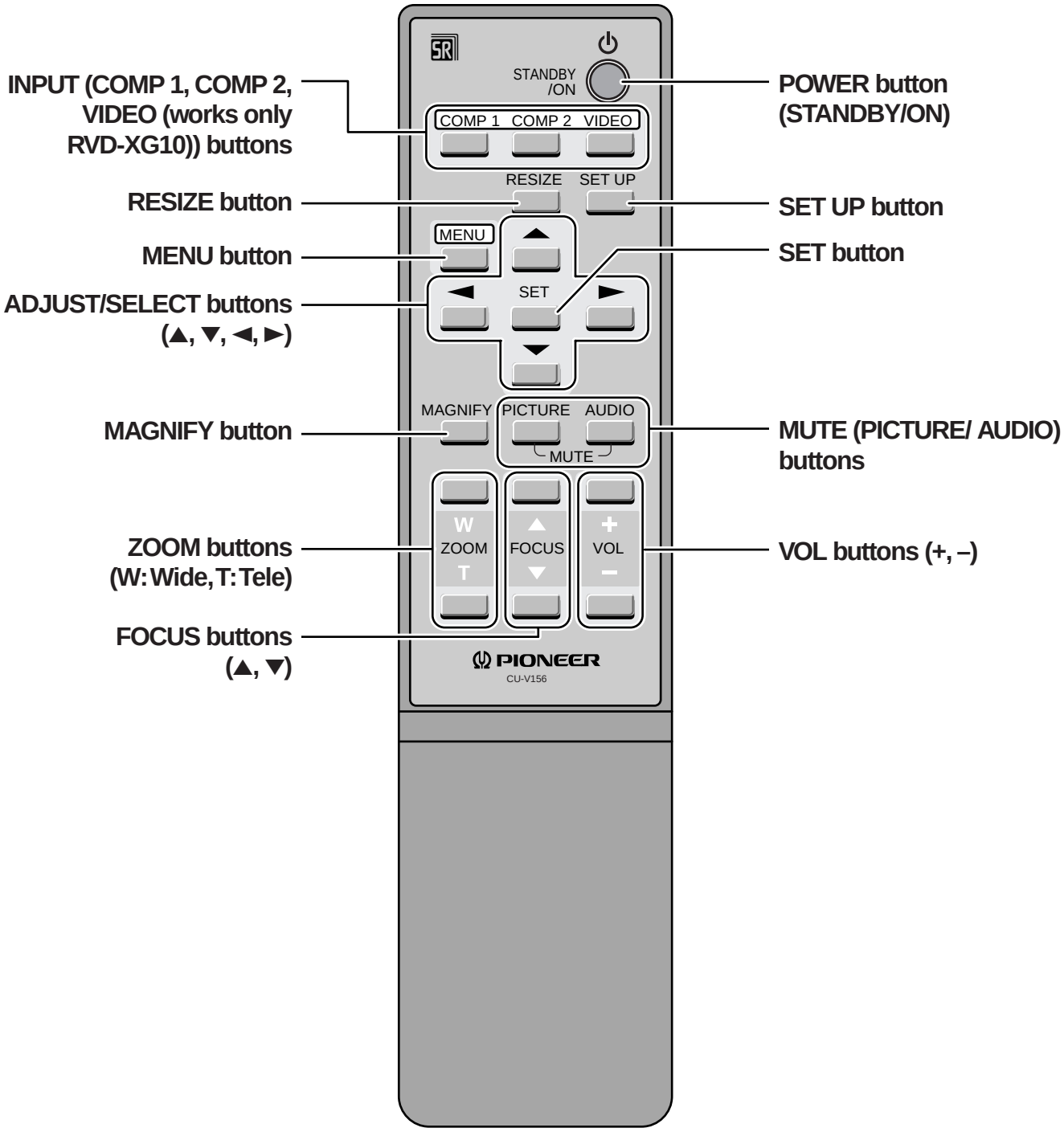
Foot adjust button

Use for adjusting the height of the Projector.



① **POWER button (STANDBY/ON)**
② **Power monitor (STANDBY indicator)**
③ **Lamp monitor**
④ **Temperature monitor**
⑤ **MAGNIFY button**
⑥ **RESIZE button**
⑦ **SET UP button**
⑧ **INPUT button**
⑨ **MENU button**
⑩ **ADJUST/SELECT buttons (▲, ▼, ◄, ►)**
⑪ **SET button**
⑫ **ZOOM buttons (W: Wide, T: Tele)**
⑬ **FOCUS buttons (▲, ▼)**
⑭ **VOLUME buttons (+, –)**
⑮ **Control terminal (RS-232C)**
⑯ **Computer video input/output terminals**
⑰ **AV input terminals (S video, Video, Audio (Left/Right) (RVD-XG10 only)**
⑱ **Audio output terminal**
⑲ **Computer audio input terminals**
⑳ **Built-in speaker**
㉑ **Remote control sensing window**
(One each on front and back)
㉒ **Main power switch (: on, : off)**
㉓ **AC inlet**
㉔ **Anti-theft lock**

■ Remote Control Unit



8.2 SPECIFICATIONS

Liquid crystal panel
..... 0.937 inch reflective liquid crystal display panel x 3
Effective pixels ..... 1024 x 768 (XGA compatible)
Total pixels ..... 800,000 pixels (1040 x 776)

Brightness ..... 800 ANSI lumen
- According to the measurement method specified in ANSI (American National Standard IT7.228)

Light source ..... Novarc H-150
(New high luminance discharge lamp)

Lens
Powered zoom focus ..... f=35 to 45.5 mm F3.5 to 3.8
Screen size (at COMP input) ..... Min. size: 38 in.
(Projection distance is 1.8 m)
Max. size: 300 in.
(Projection distance is 11.2 m)
Approx. 11 % (diagonal length) smaller at video input.

Input/Output Terminals
Computer system
Analog RGB input ..... 2 line mini D-Sub 15P
Analog RGB: 0.7 Vp-p, 75 Ω
Sync: separate/composite
3.0 V to 5.0 V, GND standard (Positive/negative), 1 kΩ
Audio input ..... 2 line stereo mini jack
0.5 Vrms, above 22 kΩ
Analog RGB output ..... 1 line mini D-sub 15P
(Sync output TTL level 330 Ω)
Audio output ..... 1 line stereo mini jack (line out)
0.5 Vrms, 470 Ω
Video system (RVD-XG10 only)
Video input ..... 1 line RCA pin
Composite: 1.0 Vp-p, 75 Ω
S terminal (Priority)
Audio input ..... 1 line RCA pin (L, R)
(Monaural output when only L is used)
Audio output ..... 1 line stereo mini jack (line out)
0.5 Vrms, 470 Ω
Control input/output (RS-232C) ..... 1 line D-Sub 9P

Corresponding signal
Video system (RVD-XG10 only)
..... NTSC, NTSC 4.43, PAL, M-PAL, N-PAL, SECAM
Computer system
Resolution
..... 1600 x 1200 Compressed display
(Only compatible with fh 75 kHz, fv 60 Hz, dot clock 162 MHz)
1280 x 1024 Compressed display, partial display
1152 x 870 Compressed display, partial display
1152 x 864 Compressed display, partial display
1024 x 768 True display
832 x 624 Enlarged display, true display
800 x 600 Enlarged display, true display
640 x 480 Enlarged display, true display
640 x 400 Enlarged display, true display
Interlace-compatible (Compatible only with SXGA, XGA)
HDTV (Compressed display) (Compatible only with RGB, separate sync)
Horizontal frequency (fh) ..... 24.5 to 82 kHz
Vertical frequency (fv) ..... 45 to 90 Hz
Dot clock of Projector ..... 21 to 135 MHz
Input signal should satisfy all the conditions of horizontal frequency, vertical frequency and dot clock (excluding 1600 x 1200).
- Some computer models have two or more display modes. Some modes may not be displayed even though the specifications are compatible. Consult with your dealer or a nearby service center for details.

Audio ..... Output 2 W x 2 W (Stereo)
Speaker ..... 70 x 40 mm x 2
Power supply ..... AC 110 V-240 V, 50/60 Hz
Power consumption ..... 2.8 A
(Approx. 21 W during standby state)

External dimensions ..... 330 (W) x 416 (D) x 130 (H) mm
13 (W) x 16 3/8 (D) x 5 1/8 (H) in.
Weight ..... 8.3 kg (18 lb 5 oz)
Operating temperature ..... 5 °C to 40 °C

Accessories
Operating Instructions 1
Remote control unit 1
Dry cell batteries [size “AA” (IEC R6P)] 2
Power cord 2
Lens cap (Attached to projector) 1
Conversion adapter (For Macintosh input) 1
Conversion adapter (For Macintosh output) 1
Computer connection cord 1
AV cord (RVD-XG10 only) 1
S-VIDEO cord (RVD-XG10 only) 1
Stereo mini plug cord 1
RS-232C cable 1
Lens cap set
(String, screw, holder, instructional manual) 1
List of Pioneer Customer Desks and Service Centers 1

- The above specifications and external dimensions are subject to change without prior notice.

Trademarks

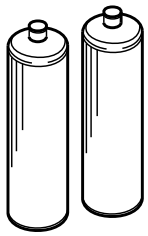
- IBM, AT, DOS/V, VGA, and XGA are registered trademarks of International Business Machines Corp.
- Macintosh is a registered trademark of Apple Computers.
- Windows is a registered trademark of Microsoft Corp., USA.
- MicroSaver and Kensington are registered trademarks of Kensington Microware Limited.
- Other company names and product names are trademarks or registered trademarks of those companies.

Accessories

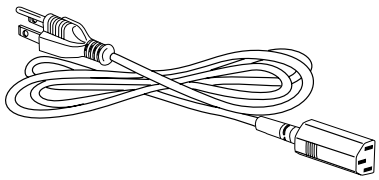
- **Remote control unit**
  AXD9004

- **Lens cap**
  (Attached to Projector)
  AAK9034

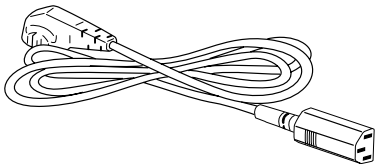
- **Dry cell battery**
  (size "AA" IEC R6P) x 2
  AEX-010



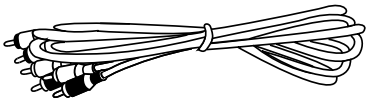
- **Power cord**
  ADG9008



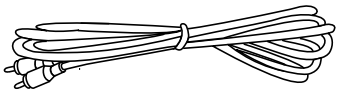
ADG9009



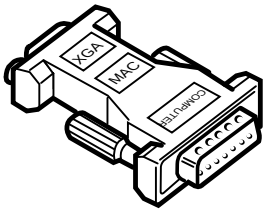
- **AV cord (RVD-XG10 only)**
  ADE9022



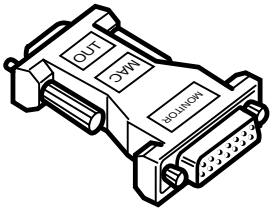
- **Stereo mini plug cord**
  ADE9023



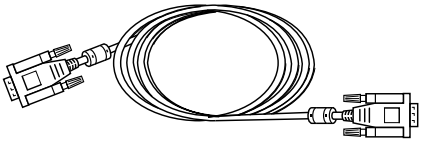
- **Conversion adapter**
  (For Macintosh input) ADE9009



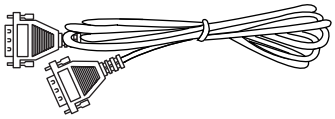
- **Conversion adapter**
  (For Macintosh output) ADE9010



- **Cord for connecting computer**
  ADE9016

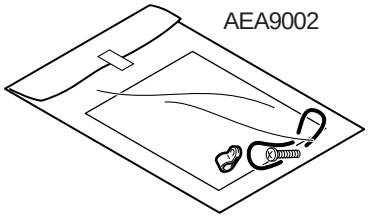


- **RS-232C cable**
  ADE9017

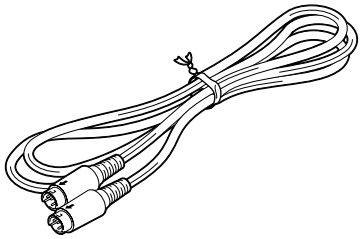


- **Lens cap set**
  This set is used to secure the lens cap to the projector to prevent losing it when not in use. (Kit contents: String, screw, holder and instruction manual.) Please use when required. (Please refer to the lens cap set instruction manual for proper installation instructions.)

AEA9002



- **S-VIDEO cord (RVD-XG10 only)**
  ADE9021



- **Operating Instructions**
- **List of Pioneer Customer Desks and Service Centers**